

MILLERS FALLS TOOLS

SINCE 1868

MILLERS FALLS COMPANY
MILLERS FALLS MASS., U.S.A.



CATALOG NO. 38

Millers Falls Company

E. P. STOUGHTON, . . Chairman
PHILIP ROGERS, . . President
JOHN W. SMEAD, . Vice-President
GEO. W. NIMS, . . . Treasurer



Catalog No. 38
February, 1922

Main Office and Works
MILLERS FALLS, MASS., U. S. A.

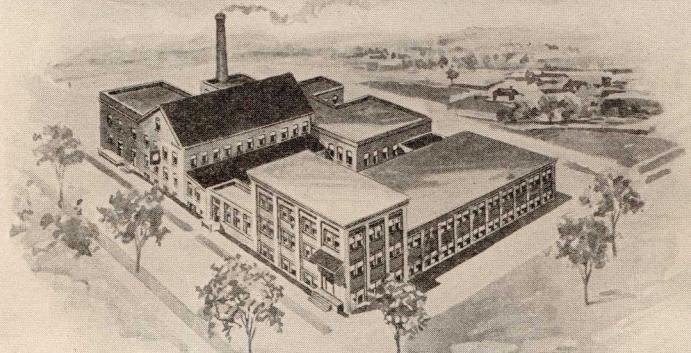
Factories
Millers Falls, Mass., U. S. A.
West Haven, Conn., U. S. A.
Brattleboro, Vt., U. S. A.

Export Office
28 Warren Street
New York City
U. S. A.

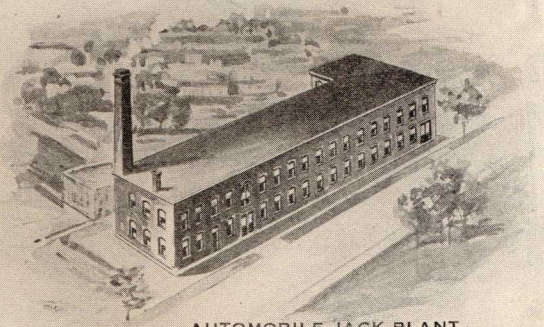
CABLE ADDRESS: "TIGNONA" NEW YORK
Codes: A. B. C. 5th Edition and Lieber's



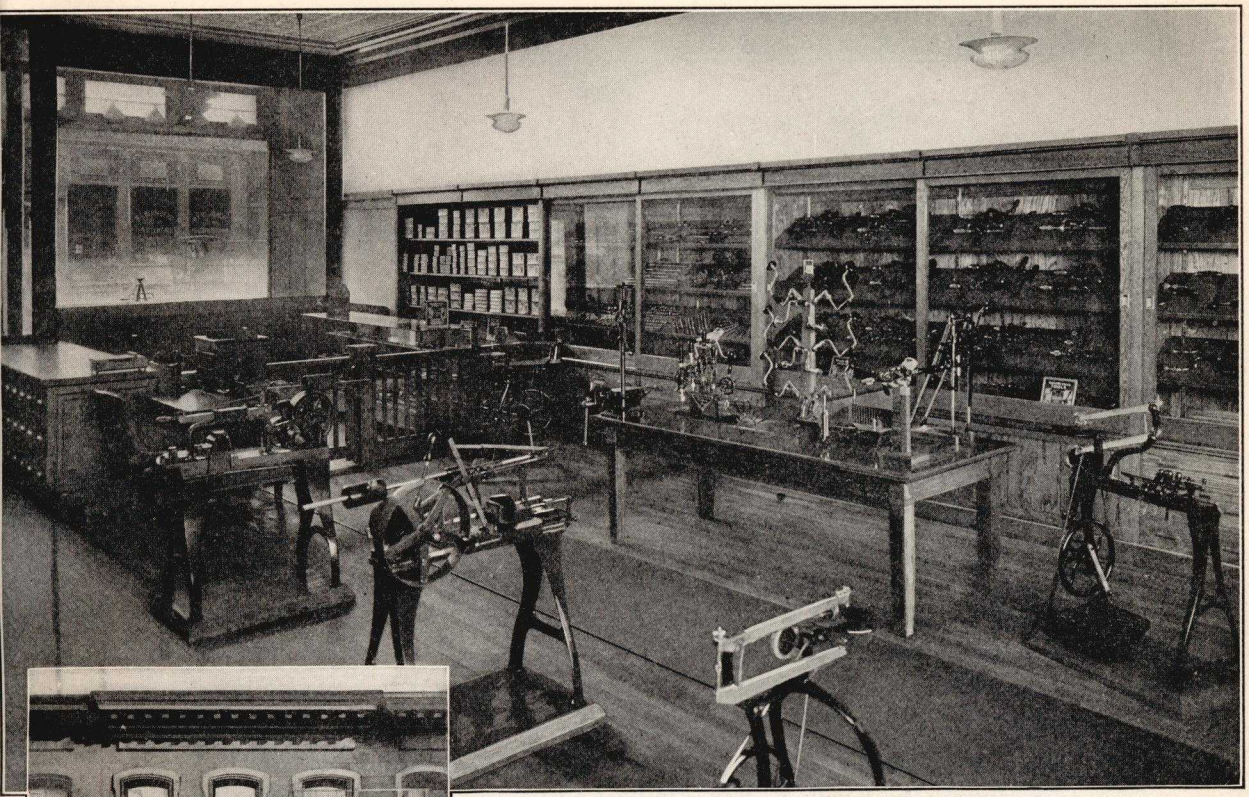
MAIN OFFICES AND PLANT OF
MILLERS FALLS CO., MILLERS FALLS, MASS., U. S. A.

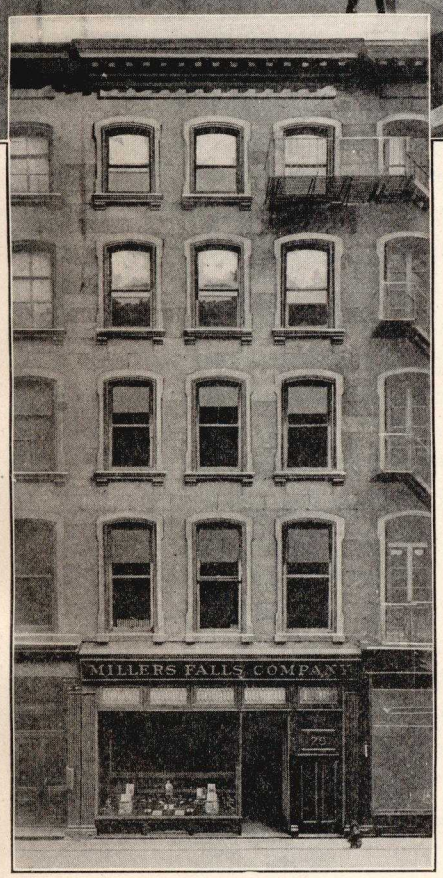


HACK SAW PLANT, FORMERLY
WEST HAVEN MFG. CO., WEST HAVEN, CONN., U. S. A.



AUTOMOBILE JACK PLANT
BRATTLEBORO, VERMONT, U. S. A.





Above---Interior of the Millers Falls New York showroom. One-half of the street floor is devoted to a complete display of Millers Falls tools. The remainder is occupied by the office force of the Export Department.

Below---Exterior of 28 Warren St., now owned by the Millers Falls Company.

The New York Home of Millers Falls Tools

28 Warren Street

THE Millers Falls Company has maintained a New York office for fifty-three years.

The first New York office was opened in November, 1868 at Number 87 Beekman Street. After occupying three other locations, it was finally moved in May, 1898 to Number 28 Warren Street, its present address, in the heart of a wholesale hardware district

In November, 1919, an opportunity was afforded to purchase the property. The building, consisting of five stories and two basement floors, was thoroughly renovated and remodeled throughout, and no expense spared to make it one of the finest office buildings of its kind in the vicinity. The upper floors are rented to high class firms as offices and showrooms while the MILLERS FALLS COMPANY occupies the entire ground floor and basements.

Number 28 Warren Street is headquarters for the Export Department and its showrooms are open to foreign and out-of-town visitors who wish to obtain impressions of the tools, at first-hand, and to save the time and expense of a trip to the factory in Millers Falls, Massachusetts. A cordial invitation is extended to the trade throughout the world, to visit this exhibition of Carpenters' Tools, Hack Saws, Automobile Jacks and accessories tools at any and all times.

FOREWORD

HERE is the catalog of Millers Falls tools. Two hundred and ten pages follow, describing forty-five distinct groups of tools in detail. Most people who will pick up this catalog are, of course, primarily interested in the tools—what they will do—the price to be paid for them, etc. May we have this first page of our catalog, however, to say something about the Millers Falls Company. The kind of company we are, after all, makes possible the kind of tools you buy and use.

You will notice on the red edge of our trade-mark that we have been tool makers since 1868. For the past fifty-four years, in the same spot in the Berkshire Hills of Massachusetts, we have been making what we believe to be the finest tools of their kind in the world.

The men who work in the Millers Falls factory are, many of them, the grandsons of men who started to work with our company when it was founded, three years after the close of the Civil war. One answer to the kind of tools you get when buying Millers Falls tools, is pride of craftsmanship—the care and exactness of production, which these men put into their work. They know how to make good tools because to make good tools in the Millers Falls Company has become tradition. Good workmen make these good tools and in turn these good tools help to make good workmen of those who use them.

The management of the Company today is in the hands of the second generation of men who founded it more than half a century ago. The men in the office, as well as the men in the shop, use every means to build and maintain the reputation of our tools and the reputation of our company for fair and square dealing.

You who read this are more than likely proud of your own business and you will understand us when we tell you that we are proud of our business. In our fifty-four years of building and perfecting new tools, we have been, we feel of real assistance in the growth of the country The Yankee ingenuity of the millions of Milers Falls tools that have been sold and used, has made possible a finer grade of work and a greater amount of work than would otherwise have been possible.

Our tools are known and used in all parts of the world. The Cuban boy bends over a Millers Falls jig-saw machine in cutting out a scroll shelf-bracket. The Argentine rancher uses a Millers Falls bit brace in building his cattle sheds. A Millers Falls nail-puller opens packing boxes received in Japan. The Chinese farmer carries a Millers Falls tool holder in his blouse, and nearly every iron-workers' shop in Australia has a Millers Falls drill and hack-saw. Millers Falls tools are often bought by foreign mechanics even though they cost far more than the tools competing with them abroad. Why? Because of their longer life, their more effective aid in rapid work and their greater accuracy.

We often hear from men in this country who have used our tools for from ten to thirty years and who regard them today as among the best in their tool boxes.

Our fifty-four years of tool making has been marked not only by constant improvements of the tools we make, but also by notable additions to our line. In 1920 we took over the National Jack Company, manufacturing automobile jacks in Brattleboro, Vermont, and our designers, after careful study and experiment, have completed the new Millers Falls jack which we now are producing in the Brattleboro plant and which was first introduced to the trade and the public last fall.

Last year we also bought the plant of the West Haven Manufacturing Company in West Haven, Connecticut, who have been manufacturers of the well-known "Universal" Hacksaw for twenty-five years. The long experience of that organization in hacksaw making has been added to our own knowledge of tool making and distribution, with the result that we have met with a success that has been highly pleasing to us.

Not content with constantly improving the design of our tools and adding new tools to our line, we have undertaken this year, after careful experimentation, a new finish for our tools, which we believe to be the finest upon the market in appearance and in durability, adding to the life of the tools in use.

We put this catalog in your hands with the hope that it will make you better acquainted with our full line and with the uses of the tools we are making for you.

TERMS

All goods are sold F. O. B. cars, Factory—either Millers Falls, Mass., Brattleboro, Vt. or West Haven, Conn. Export shipments are F. O. B. New York City.

Invoices are payable in New York or Boston funds, net 30 days from date rendered, or less 2% cash discount, if paid within ten days.

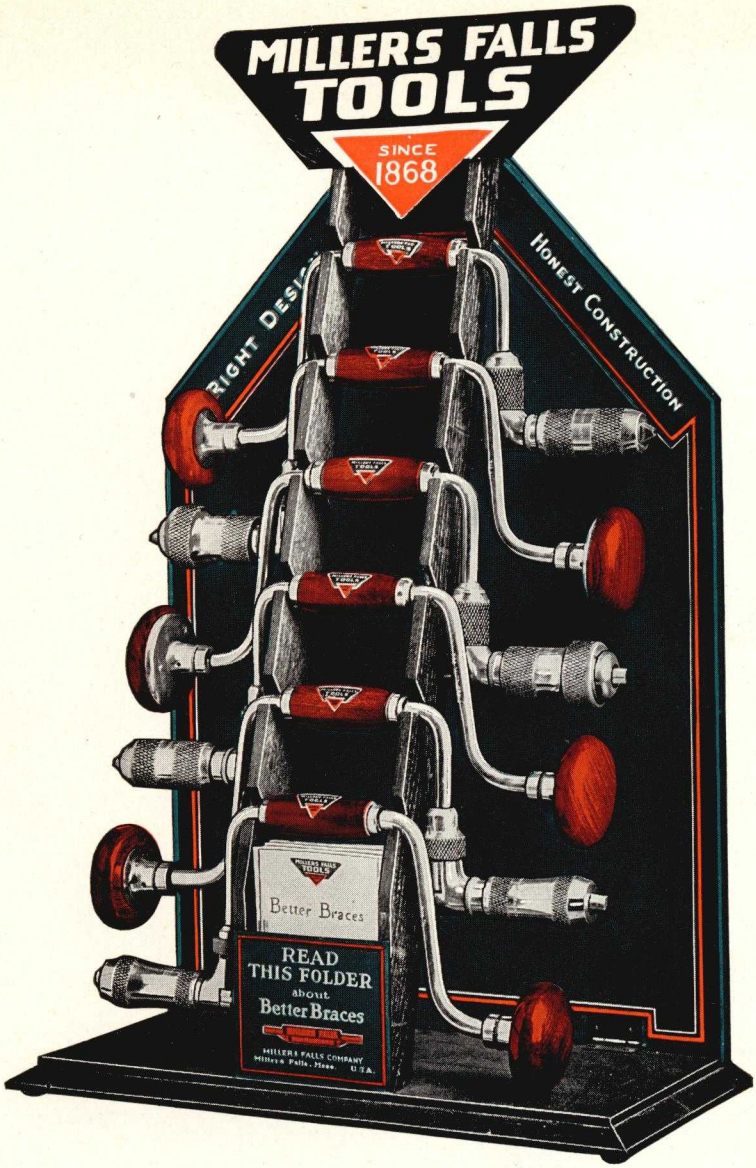
Remittances should be mailed to our Main Office at Millers Falls, Mass.

GUARANTEE

Every tool stamped "Millers Falls" is warranted free from defects in material and in workmanship. Should any tool show such a defect, we will repair or replace it free of charge.

ELECTROTYPES

For the convenience of our customers, who issue catalogs, or other printed matter, we offer two sizes of electrotypes for each of our tools, one of the size used in this catalog; the other approximately 2 1-4″ wide for one column use. These are supplied without charge.



BRACE DISPLAY, NO. 600

THIS New Millers Falls Brace Display fairly speaks an invitation to the prospective buyer to pick up and examine each brace. It has an individuality that makes it stand out in any window or on any counter. It is compact, takes up little space, strongly built and artistic in design. It will demand attention from any part of your store and add to its general appearance. The fixture itself is given to you free of charge with an order for the following Millers Falls Braces:

1/6 doz. No. 772	1/6 doz. No. 8132	1/6 doz. No. 322
1/6 doz. No. 732	1/6 doz. No. 32	1/6 doz. No. 422

One hundred descriptive leaflets imprinted with dealer's name and address supplied with each display.

SPECIFICATIONS

Height—32 inches to top of trade mark.
Width—18 inches.
Base of Wood.
Back of tin on wood frame.
Wood rack for holding Braces.
Illustration shows actual colors.

Shipping weight, 100 pounds. *Code—Amite* Weight, with 6 braces, 26 lbs.

EACH FIXTURE PACKED IN AN INDIVIDUAL CARTON.

MILLERS FALLS TOOLS SINCE 1868

BRACES

The first Millers Falls brace was made in 1868. It was the original bit brace with chuck and jaws. Since that time every improvement of practical value in brace design has been the invention of the Millers Falls Company.

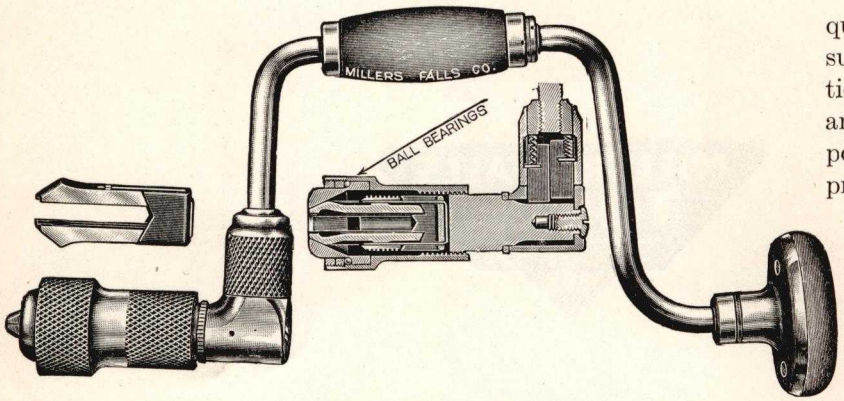
Today the line embraces twenty-three distinct styles and incorporates seventy-five numbers, which cover every possible brace requirement.

Utmost care and thought is given to every detail of manufacture. None but the finest imported cocobolo wood is used on the better grade braces; the chuck bodies are of solid bar steel; jaws are of high carbon steel; ratchet rings are of steel with machine cut cams; the sweep rods are threaded, soldered and pinned into the crooked socket. The result is an "inner goodness" as well as a fine outward appearance.

Over half a century's experience in brace making is built into every brace stamped "Millers Falls". The name guarantees a brace of right design and honest construction.

Ratchet Braces

Nos. 870-872



These are our highest quality braces, and are unsurpassed for ease of operation in heavy work. They are ball bearing at every possible point and run practically without friction.

Specifications

Cocobolo head and handle. Exposed metal parts nickel plated and buffed.

Chuck—Lion ball-bearing. Jaws have parallel milled grooves which grip along their entire length. Holds bit shanks, round from 1/8 to 1/2 inch. and No. 1 Morse taper shanks.

Ratchet—concealed. Head—ball bearing. Full steel clad.

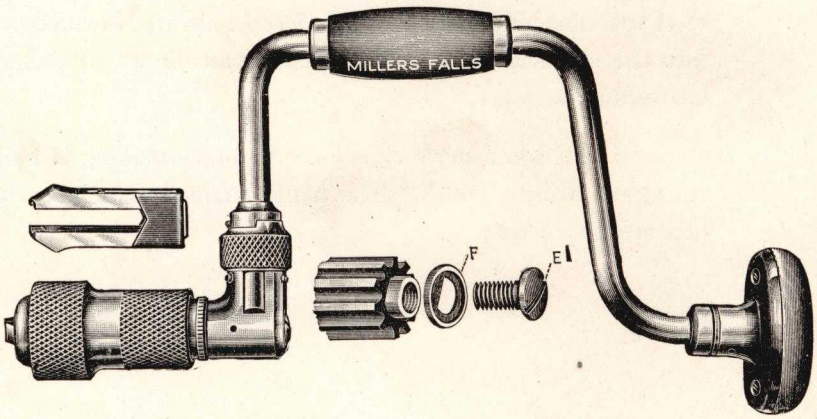
Handle—ball bearing. Inserted metal rings.

Nos.	870	871	872
Sweep	14 in.	12 in.	10 in.
Weight (one-sixth dozen)	8¾ lbs.	7¾ lbs.	7¼ lbs.
Price each	$6.50	6.40	6.25
Code	*Abatis*	*Abbattoir*	*Abba*

Packed one-sixth dozen in a pasteboard box, three dozen in a case.

Nos. 769-773

This series is identical with Nos. 870-872 except that the ratchet is of the boxed type and the sweep handle is not ball bearing.

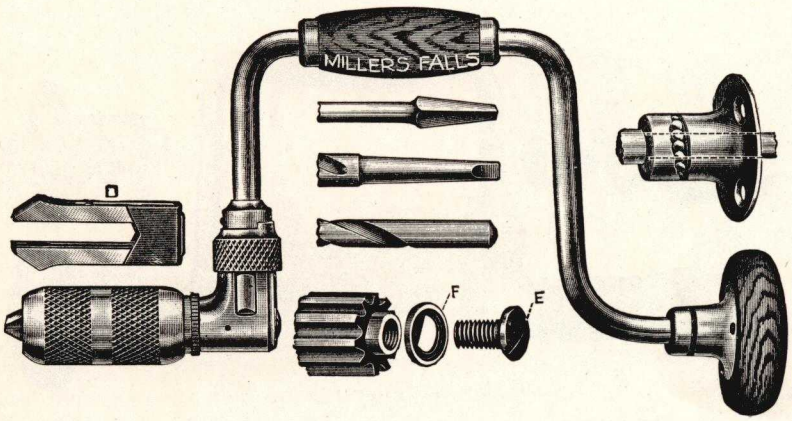


Nos.	769	770	771	772	773
Sweep	16 in.	14 in.	12 in.	10 in.	8 in.
Weight (one-sixth dozen)	9½ lbs.	9 lbs.	8 lbs.	7½ lbs.	7 lbs.
Price each	$5.85	5.60	5.40	5.25	5.15
Code	*Aback*	*Abacus*	*Abaft*	*Abandon*	*Abask*

Packed one-sixth dozen in a pasteboard box, three dozen in a case.

Ratchet Braces

Nos. 730-734



This series is the most popular of our better grade braces. Since first offered it has been popularly known as the "Holdall" brace—this name having reference to the chuck which holds bit shanks, round from 1/8 to 1/2 inch and No. 1 Morse taper shanks.

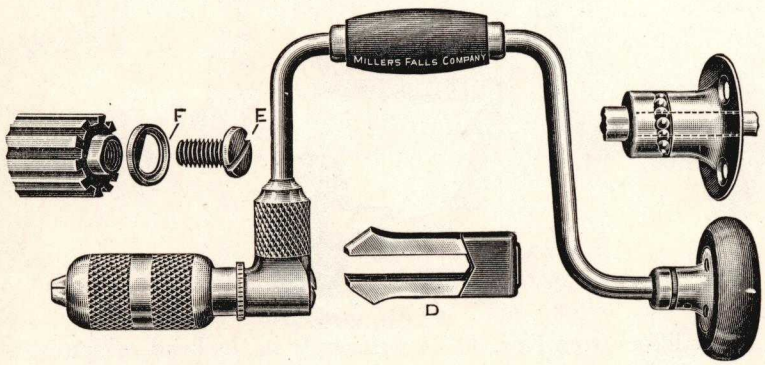
Specifications

Cocobolo head and handle. Exposed metal parts nickel plated and buffed.
Chuck—Master. Jaws have parallel milled grooves which grip along their entire length.
Ratchet—Boxed. Head—Ball bearing. Steel quill. Handle—Inserted metal rings.

Nos.	730	731	732	733	734
Sweep	14 in.	12 in.	10 in.	8 in.	6 in.
Weight (1/6 dozen)	8 lbs.	7 lbs.	6¾ lbs.	6 lbs.	5½ lbs.
Price each	$4.80	4.65	4.50	4.40	4.40
Code	*Abbey*	*Abbott*	*Abdicate*	*Abduce*	*Abeam*

Packed one-sixth dozen in a pasteboard box, three dozen in a case.

Nos. 8130-8133



Except for the ratchet which is of the concealed type, these braces are identical with No. 730 series.

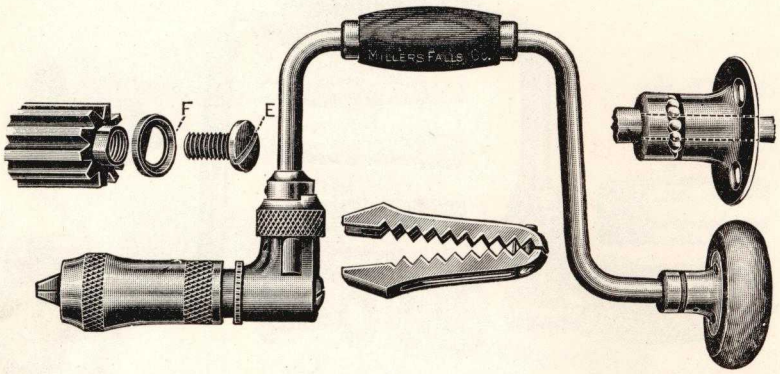
Specifications

Nos.	8130	8131	8132	8133
Sweep	14 in.	12 in.	10 in.	8 in.
Weight (1/6 dozen)	8¼ lbs.	7¼ lbs.	6⅞ lbs.	6¼ lbs.
Price each	$5.40	5.25	5.10	5.00
Code	*Abode*	*Abolish*	*Abol tion*	*Aborginal*

Packed one-sixth dozen in a pasteboard box, three dozen in a case.

Ratchet Braces

Nos. 30-34



There is no brace better known to carpenters than No. 32 of this series. Its sale exceeds that of any brace we make.

The braces of this series will fulfill every boring requirement where bit shanks only are used.

Specifications

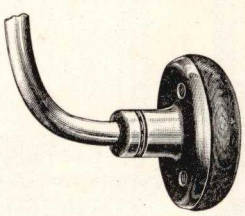
Cocobolo head and handle. Exposed metal parts nickel plated and buffed.

Chuck—Barber with forged steel alligator jaws. Holds bit shanks only.

Ratchet—Boxed.	Head—Ball bearing.	Steel quill.	Handle—Inserted metal rings		
Nos.	30	31	32	33	34
Sweep	14 in.	12 in.	10 in.	8 in.	6 in.
Weight (1/6 dozen)	7½ lbs.	6½ lbs.	6 lbs.	5½ lbs.	5 lbs.
Price each	$4.40	4.25	4.10	4.00	4.00
Code	*Abscond*	*Absent*	*Absolve*	*Absorb*	*Abstain*

Packed one-sixth dozen in a pasteboard box, three dozen in a case.

Nos. 30A-34A



This series differs from Nos. 30–34 series only in the head, which is full steel clad.

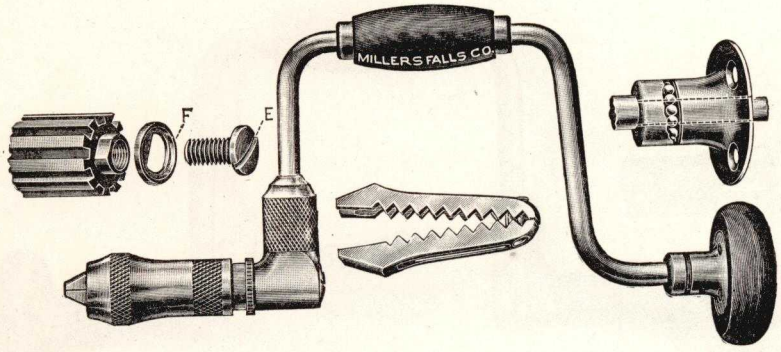
Specifications

Nos.	30A	31A	32A	33A	34A
Sweep	14 in.	12 in.	10 in.	8 in.	6 in.
Weight (1/6) dozen	7¾ lbs.	6¾ lbs.	6½ lbs.	5¾ lbs.	5¼ lbs.
Price each	$4.60	4.45	4.30	4.20	4.20
Code	*Abstemious*	*Abstinence*	*Abstract*	*Abstruse*	*Abundance*

Packed one-sixth dozen in a pasteboard box, three dozen in a case.

Ratchet Braces

Nos. 130-133

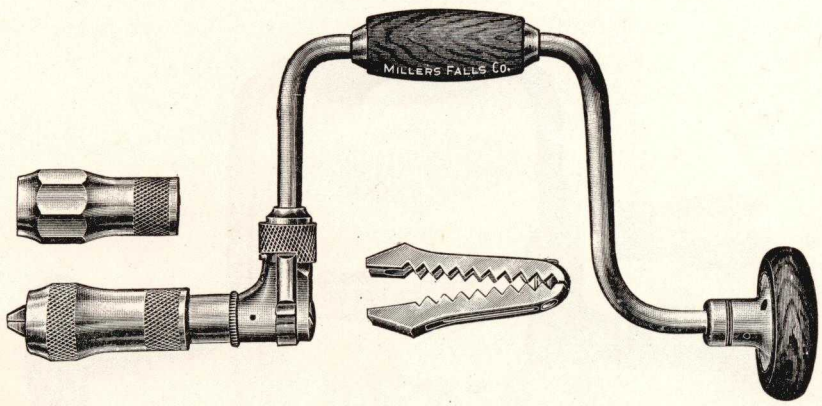


For those who prefer the concealed ratchet we offer this series. Except for this detail they are the same as No. 30 series.

Nos.	130	131	132	133
Sweep	14 in.	12 in.	10 in.	8 in.
Weight (1/6 dozen)	7½ lbs.	6½ lbs.	6 lbs.	5¼ lbs.
Price each	$4.70	4.55	4.40	4.30
Code	*Abyss*	*Academy*	*Accede*	*Accelerate*

Packed one-sixth dozen in a pasteboard box, three dozen in a case.

Nos. 321-323



Every feature essential to a good brace is found in these braces. They are lower priced than No. 32 series because of native hardwood handles and head and less expensive ratchet construction.

Specifications

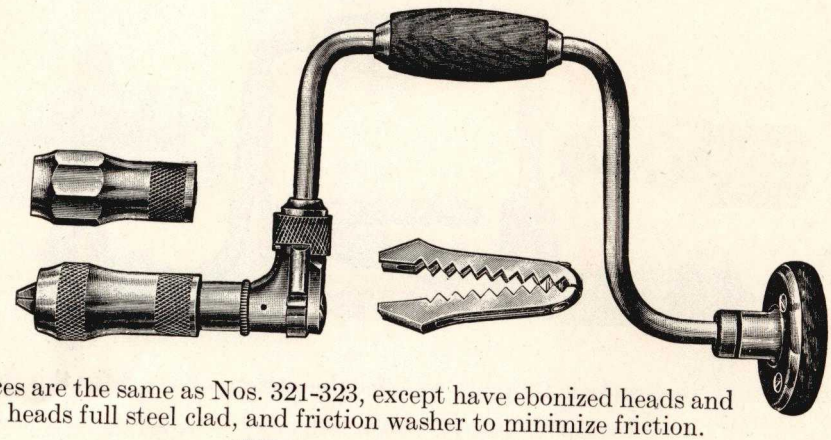
Stained hardwood head and handles. Exposed metal parts polished and nickel plated.
Chuck—Barber with forged alligator jaws. Ratchet—open.
Handle—inserted metal rings. Head—ball bearing.

Nos.	321	322	323
Sweep	12 in.	10 in.	8 in.
Weight (one-half dozen)	17 lbs.	15¼ lbs.	13¾ lbs.
Price each	$3.50	3.40	3.30
Code	*Achieve*	*Acolyte*	*Acorn*

Packed one-half dozen in a pasteboard box, three dozen in a case.
Furnished with octagonal chuck shell, each, extra, $0.05.

Ratchet Braces

Nos. 1321-1324

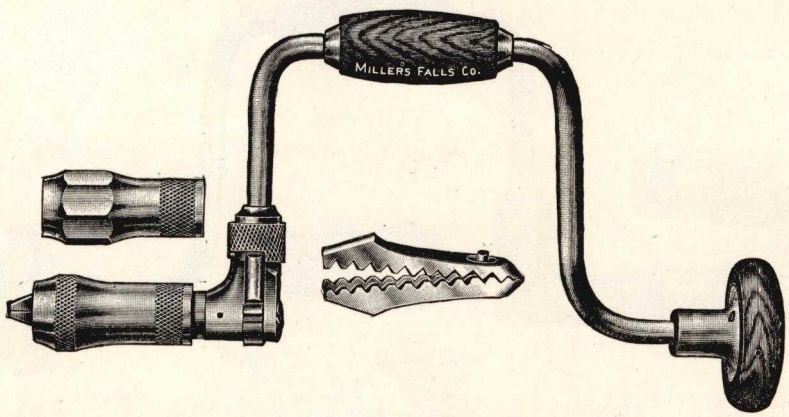


These Braces are the same as Nos. 321-323, except have ebonized heads and handles, with heads full steel clad, and friction washer to minimize friction.

Nos.	1321	1322	1323	1324
Sweep	12 in.	10 in.	8 in.	6 in.
Weight (½ dozen)	18 lbs.	16¾ lbs.	14¾ lbs.	13½ lbs.
Price each	$3.30	3.20	3.10	3.10
Code	*Acrimony*	*Acrobat*	*Active*	*Actor*

Packed one-half dozen in a pasteboard box, three dozen in a case.
Furnished with octagonal chucks, each, extra, $0.05.

Nos. 421-423



Specifications

An inexpensive nickeled series made for those whose work does not require the refinements of the higher priced braces.

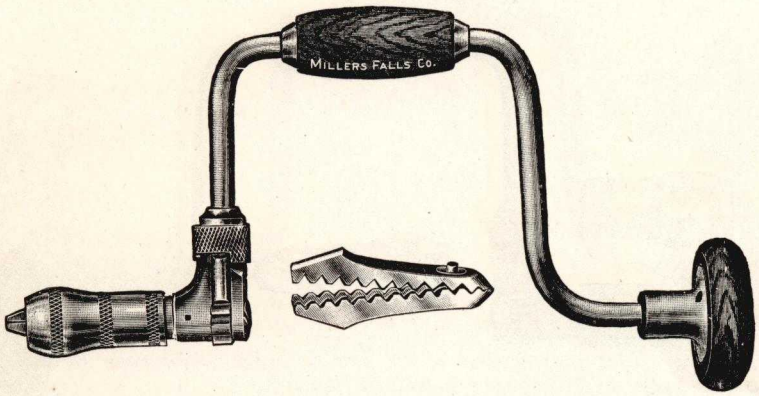
Stained hardwood head and handle. Exposed parts polished and nickel plated.
Chuck—Barber, cast alligator jaws. Ratchet—open. Handle—inserted metal rings.
Head—Screwed on and securely held by two screws. Plain bearing.

Nos.	421	422	423
Sweep	12 in.	10 in.	8 in.
Weight (½ dozen)	17 lbs.	15¼ lbs.	13¾ lbs.
Price each	$2.60	2.55	2.50
Code	*Adjective*	*Adjourn*	*Adjunct*

Packed one-half dozen in a pasteboard box, three dozen in a case.
Furnished with octagonal chucks, each, extra, $0.05.

Ratchet Braces

Nos. 1661-1663



There are many who have but infrequent use for a brace and with whom price is the chief consideration. This series made lighter than our other braces meets this demand.

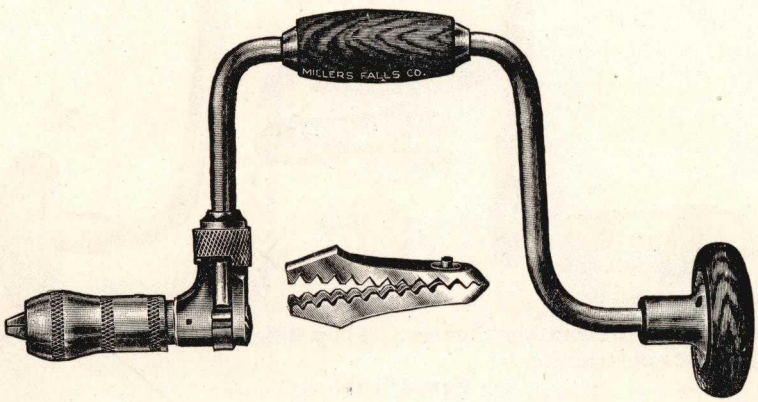
Specifications

Identical in design and finish with No. 421 series, but of lighter construction.

Nos.	1661	1662	1663
Sweep	12 in.	10 in.	8 in.
Weight (½ dozen)	13¾ lbs.	12¾ lbs.	10 lbs.
Price each	$2.25	2.20	2.15
Code	*Adverse*	*Advocate*	*Aeolian*

Packed one-half dozen in a pasteboard box, three dozen in a case.

Nos. 161-163



These are the same braces as Nos. 1661-1663 with exposed metal parts polished instead of nickel plated.

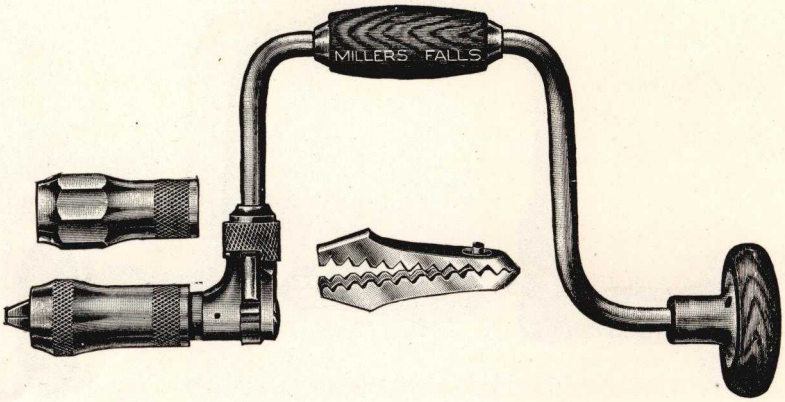
Specifications

Nos.	161	162	163
Sweep	12 in.	10 in.	8 in.
Weight (½ dozen)	13¾ lbs.	12¾ lbs.	10 lbs.
Price each	$1.95	1.90	1.85
Code	*Afar*	*Affable*	*Affection*

Packed one-half dozen in a pasteboard box, three dozen in a case.

Ratchet Braces

Nos. 631-633



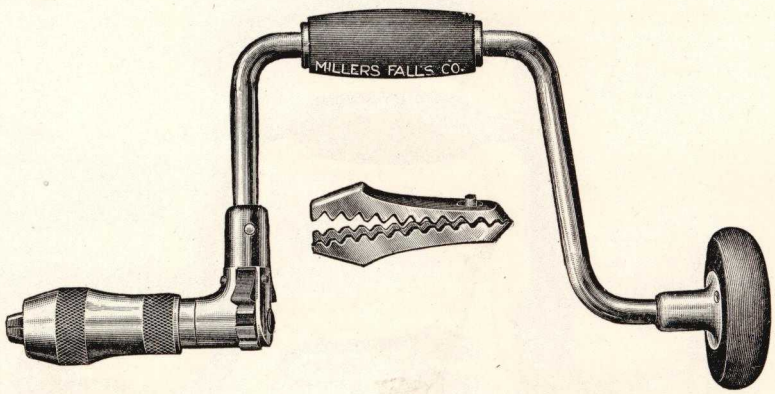
These braces are the same as Nos. 421–423 (page 10) except that the exposed metal parts are polished instead of nickel plated.

Specifications

Nos.	631	632	633
Sweep	12 in.	10 in.	8 in.
Weight (½ dozen)	17 lbs.	15¾ lbs.	13¾ lbs.
Price each	$2.30	2.25	2.20
Code	*Adroit*	*Adulation*	*Advance*

Packed one-half dozen in a pasteboard box, three dozen in a case.

Nos. 261-263



These are our lowest priced ratchet braces. They differ from our other inexpensive braces in finish and in the ratchet construction.

Specifications

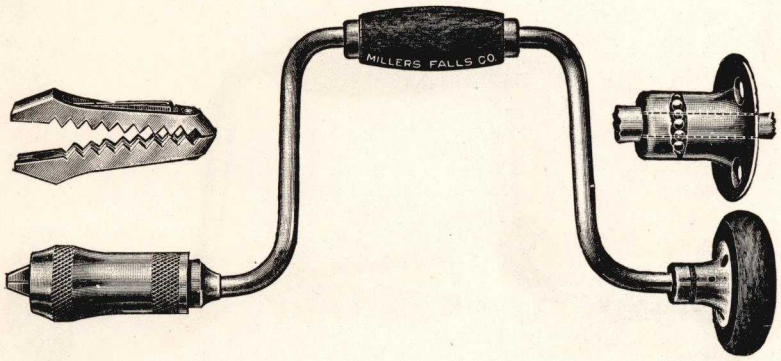
Stained hardwood head and handle.
Chuck—Barber. Cast alligator jaws.
Ratchet—"pick out" pawl type.
Head—screwed on and held by two wood screws. Plain bearing.

Nos.	261	262	263
Sweep	12 in.	10 in.	8 in.
Weight (½ dozen)	13½ lbs.	12½ lbs.	9¾ lbs.
Price each	$1.70	1.65	1.60
Code	*Afflict*	*Affluent*	*Affray*

Packed one-half dozen in a pasteboard box, three dozen in a case.

Plain or Sleeve Braces

Nos. 12-14



For certain types of work the ratchet on a brace is superfluous. Under such circumstances the purchase of a plain brace is an object because it is lower priced than a ratchet brace of equal finish and build.

Nos. 12 -14 are our highest quality plain braces.

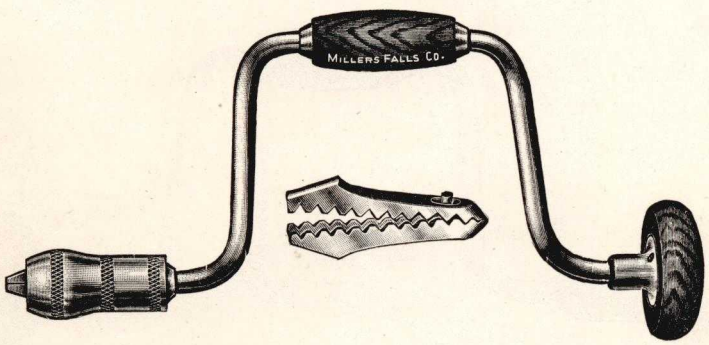
Specifications

Cocobolo head and handle. Exposed metal parts polished and nickel plated.
Chuck—Barber. Forged alligator jaws.
Head—ball bearing. Handle—inserted metal rings.

Nos.	12	13	14
Sweep	10 in.	8 in.	6 in.
Weight (½ dozen)	14½ lbs.	12¼ lbs.	11 lbs.
Price each	$3.10	3.00	3.00
Code	*Accomplice*	*Accord*	*Accost*

Packed one-half dozen in a pasteboard box, three dozen in a case.

Nos. 141-143



This is a low priced series of lighter construction and less expensive finish than Nos. 12-14.

Specifications

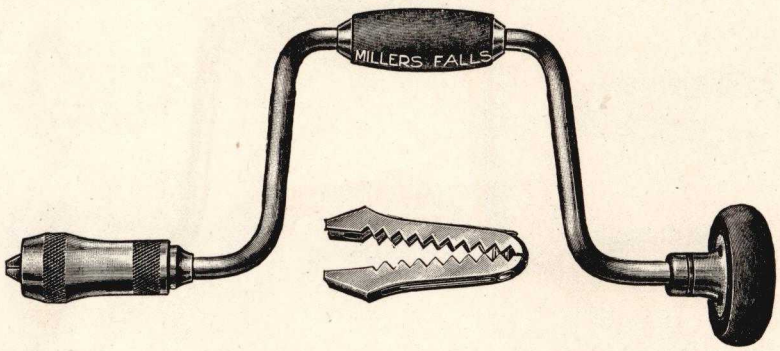
Stained hardwood head and handle. Exposed metal parts polished.
Chuck—Barber. Cast alligator jaws. Head—plain bearing.

Nos.	141	142	143
Sweep	12 in.	10 in.	8 in.
Weight (½ dozen)	11½ lbs.	10½ lbs.	7¾ lbs.
Price each	$1.00	.95	.90
Code	*Affidavit*	*Affiliate*	*Affinity*

Packed one-half dozen in a pasteboard box, three dozen in a case.

Plain or Sleeve Braces

Nos. 221-223



This series is built to meet a demand for a medium price brace of the sleeve type.

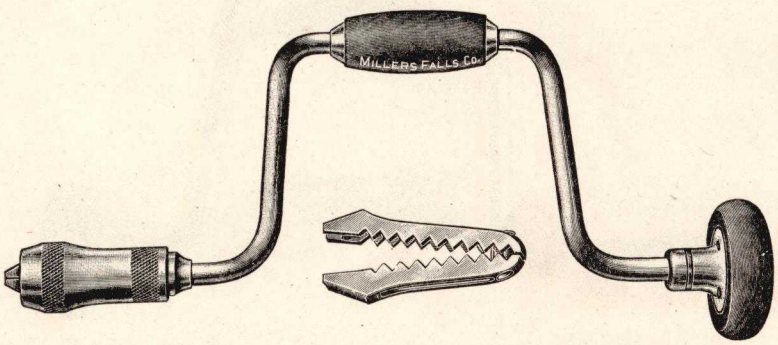
Specifications

Stained hardwood head and handle. Exposed metal parts polished and nickel plated.
Chuck—Barber. Forged alligator jaws.
Head—friction washer to minimize friction. Steel quill.
Handle—inserted metal rings.

Nos.	221	222	223
Sweep	12 in.	10 in.	8 in.
Weight (½ dozen)	13¾ lbs.	12¾ lbs.	10 lbs.
Price each	$2.05	1.95	1.90
Code	*Adament*	*Adder*	*Addict*

Packed one-half dozen in a pasteboard box, three dozen in a case.

Nos. 21-23



The same braces as Nos. 221-223 except are polished instead of nickel plated.

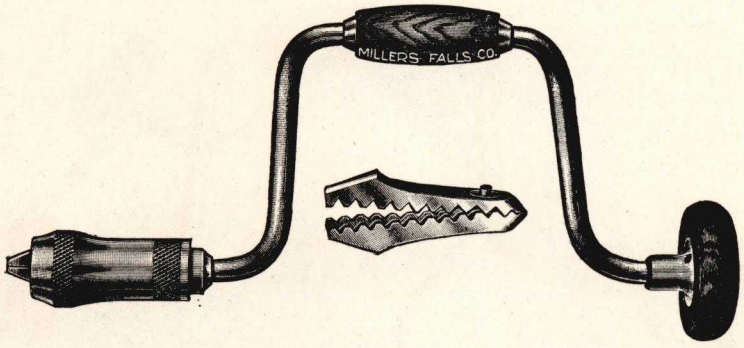
Specifications

Nos.	21	22	23
Sweep	12 in.	10 in.	8 in.
Weight (½ dozen)	13¾ lbs.	12¾ lbs.	10 lbs.
Price each	$1.95	1.85	1.75
Code	*Adhere*	*Adieu*	*Adipose*

Packed one-half dozen in a pasteboard box, three dozen in a case.

Plain or Sleeve Braces

Nos. 401-403



The essential difference between this and the Nos. 221-223 series is in the chuck and head.

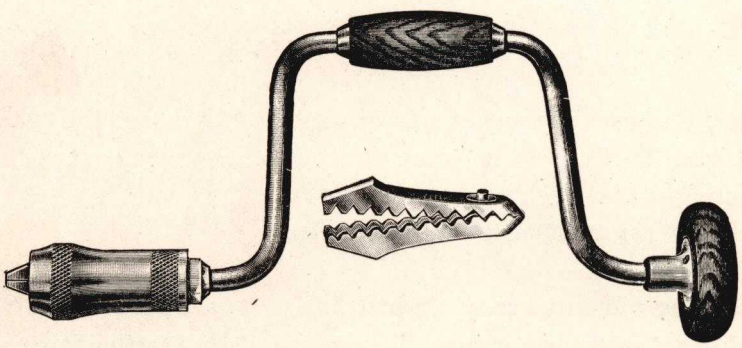
Specifications

Stained hardwood head and handle. Exposed metal parts polished and nickel plated.
Chuck—Barber. Cast alligator jaws. Head—plain bearing. Handle—inserted metal rings.

Nos.	401	402	403
Sweep	12 in.	10 in.	8 in.
Weight (½ dozen)	13¾ lbs.	12¾ lbs.	10 lbs.
Price each	$1.70	1.65	1.60
Code	*Adjutant*	*Admiral*	*Admire*

Packed one-half dozen in a pasteboard box, three dozen in a case.

Nos. 601-603



The same braces as Nos. 401–403, with polished instead of nickeled metal parts.

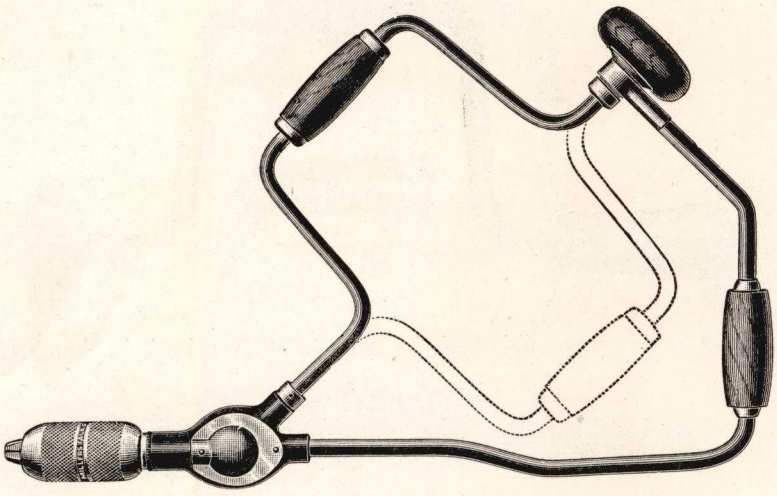
Specifications

Nos.	601	602	603
Sweep	12 in.	10 in.	8 in.
Weight (½ dozen)	13¾ lbs.	12¾ lbs.	10 lbs.
Price each	$1.35	1.30	1.25
Code	*Advent*	*Adventure*	*Adverb*

Packed one-half dozen in a pasteboard box, three dozen in a case.

Corner Braces

Nos. 502-503



The purpose of this tool is to simplify the boring of holes in corners. It accomplishes such boring more easily and more rapidly than the ordinary ratchet brace.

Maximum power is derived because the pressure applied is directly in line with the chuck. Is easy to operate because there is ample space between sweep and steadying handle to allow free use of the hand.

The gears are enclosed for protection from dirt and resulting wear.

Specifications

Chuck—Master. Capacity. Bit shanks, round from ⅛ to ½ inch, and No. 1 Morse Taper shanks.

Gears—case hardened. Enclosed for protection, but easily accessible for oiling.

Ball thrust bearing at base of chuck.

Hardened steel bushings at chuck spindle and sweep.

Head—ball bearing.

Handles—free acting. Inserted metal rings. Both of stained hardwood.

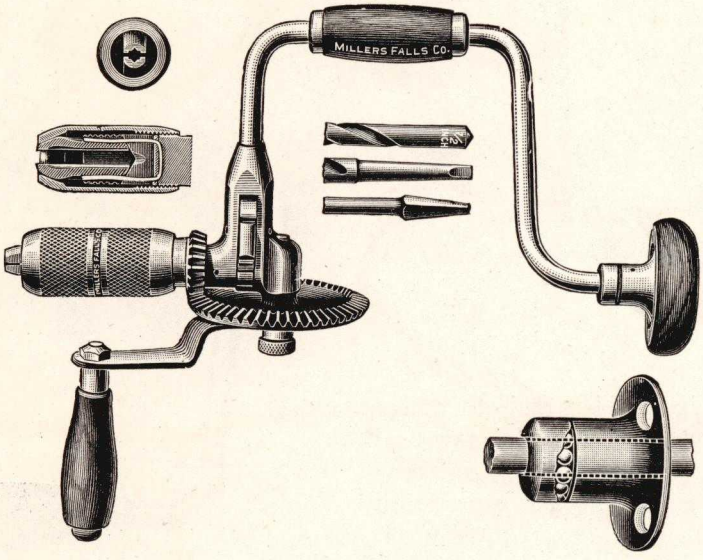
Exposed metal parts, except hub casting, nickel plated. Hub casting japanned.

Nos.	502	503
Sweep	10 in.	8 in.
Weight (1/6 dozen)	9½ lbs.	9⅛ lbs.
Length	17 in.	17 in.
Price each	$6.75	6.25
Code	*Agape*	*Agent*

Packed one-sixth dozen in a pasteboard box.

Drill Brace

No. 182



This tool, is, as the name implies, a combination bit brace and breast drill. With it one is equipped to do practically every kind of boring.

It takes but a moment to convert the brace into a breast drill for the greater power necessary to drill metal, cement or any hard material.

The reverse operation is as easily and quickly done.

The tool is invaluable to anyone whose work is not confined to one kind of drilling.

Specifications

Chuck—Master. Capacity. Bit shanks, round from $\frac{1}{8}$ to $\frac{1}{2}$ inch, and No. 1 Morse taper shanks.

Ratchet—open.

Gear Ratio—3 to 1.

Brace Sweep—10 inch.

Head—ball bearing.

Handle—free acting. Inserted metal rings. Stained hardwood.

Large gear red.

Other metal parts nickel plated.

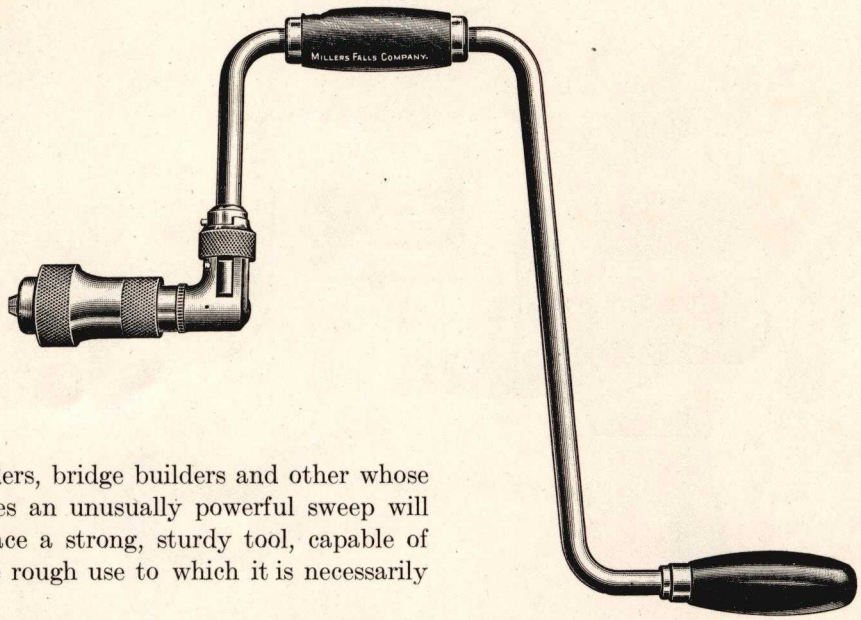
Weight each, $4\frac{3}{4}$ lbs. Price each, $7.25

Code—Aftermath

Packed one in a pasteboard box.

Whimble Brace

No. 7312



Ship builders, bridge builders and other whose work requires an unusually powerful sweep will find this brace a strong, sturdy tool, capable of standing the rough use to which it is necessarily put.

Specifications

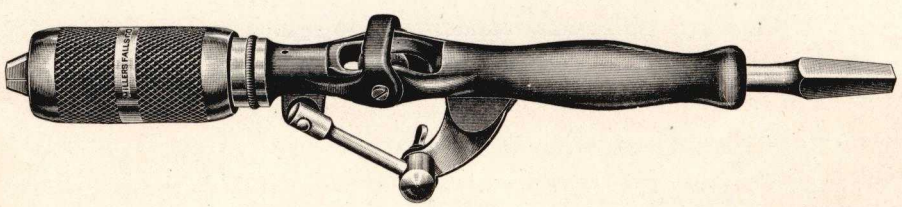
Chuck—Lion, ball bearing. Holds, with vise-like grip, bit shanks, round from 1/8 to 1/2 inch and No. 1 Morse Taper shanks. Sweep Rod—9/16 inch steel stock. Ratchet—boxed.
Distance from center handle to main axis 6 inches. Upper handle offset 6 inches from main axis.
Handles—Free acting. Stained hardwood. Exposed metal parts polished and nickel plated.

Weight (1/6 dozen) 7 lbs. *Code—Astute* Price each, $4.40

Packed one-sixth dozen in a pasteboard box.

Angular Bit Stock

No. 108



Used with a bit brace or breast drill is an efficient tool for drilling at an angle. Can be used as a bit extension in straight work.

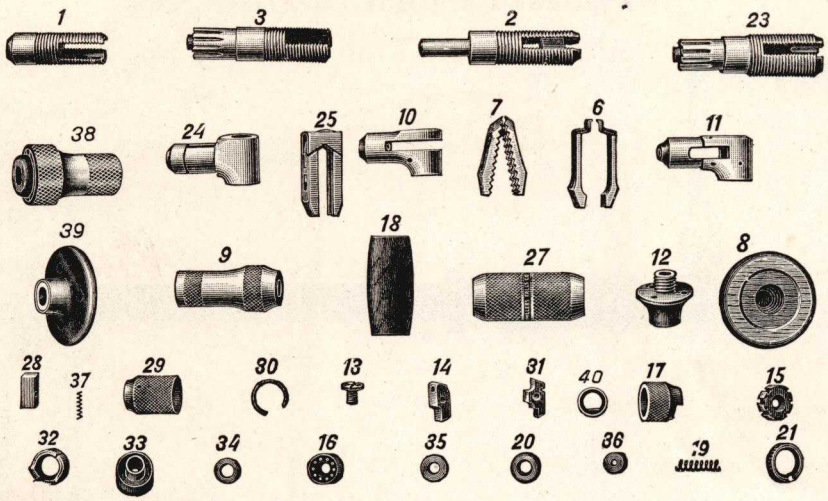
Specifications

Chuck—Master. Capacity. Bit shanks, round from 1/8 to 1/2 inch, and No. 1 Morse taper shanks.
Boring angle adjustable from 180° to 125°. Main casting japanned.
Chuck and other parts polished. Length (at 180°) 12½ inches.

Weight each, 2 1/6 lbs. *Code—Cabal* Price each, $3.15

Packed one in a pasteboard box.

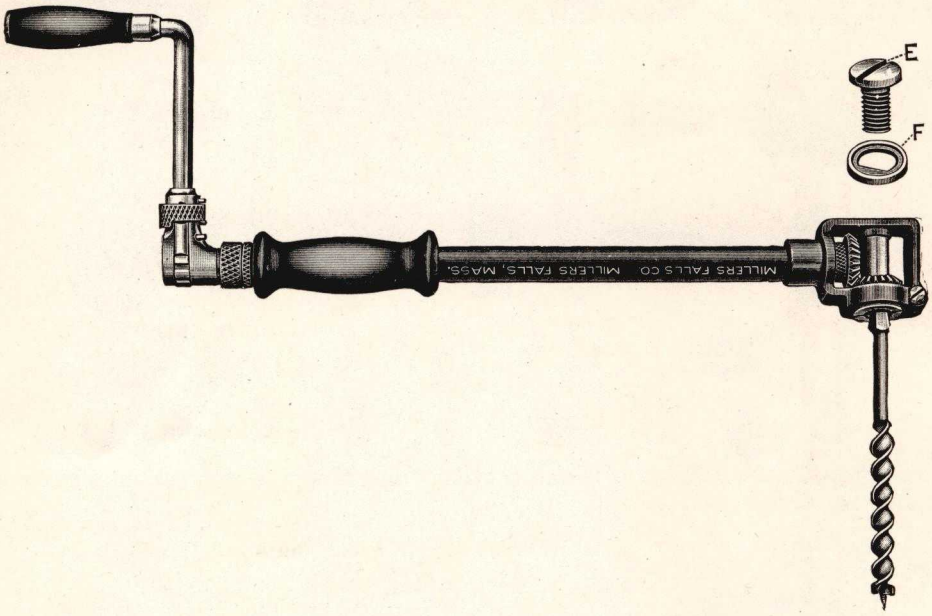
Brace Parts and Prices



In ordering parts, the number of the brace for which they are wanted should be specified as well as the number of the part.

No.		Price
1	Tail socket for braces Nos. 12-14	$ .30
1	Tail socket for braces Nos. 221-223 and 21-23	.30
1	Tail socket for braces Nos. 401-403, 601-603, 141-143 and 261-263	.25
3	Tail socket for braces Nos. 130-133 and 30-34	.60
7	Jaws for braces Nos. 130-133, 30-34, 321-323, 1321-1324, and 221-223	.60
7	Jaws for braces Nos. 21-23	.50
7	Jaws for braces Nos. 401-403, 421-423, 601-603, 631-633, 1661-1663, 141-143, 161-163 and 261-263	.10
8	Head, cocobolo	.50
8	Head, maple stained and polished	.20
8	Head, tumbled stained	.10
8	Head, ebony finish	.20
9	Shell, nickeled	.60
9	Shell, high polish	.50
9	Shell, rough polish	.40
10	Crooked socket for braces Nos. 321-323 and 1321-1324	.45
10	Crooked socket for braces Nos. 421-423, 631-633, 1661-1663, 161-163 and 261-263	.30
11	Crooked socket for braces Nos. 769-773, 730-734 and 30-34	.75
12	Quill for braces Nos. 8130-8133, 730-734, 130-133, 12-14, 30-34, 321-323, 221-223, 21-23	.30
12	Quill for braces Nos. 401-403, 421-423, 601-603, 631-633	.30
12	Quill for braces Nos. 1661-1663, 141-143, 161-163 and 261-263	.10
13	Chuck screw	.10
14	Ratchet dogs, per set (2)	.10
15	Ratchet wheel	$ .10
16	Ball cup No. 732, with balls	.20
17	Holdall and common ratchet ring	.20
18	Handle, cocobolo, ball bearing	.40
18	Handle, cocobolo	.40
18	Handle, maple, stained and polished	.10
18	Handle, tumbled stained	.10
18	Handle, ebony finish	.10
19	Dog spring	.10
20	Ball bearing washer	.10
21	Socket ring washer	.10
23	Master tail socket	.70
24	Crooked socket for braces Nos. 870-872, 8130-8133, 130-133	.75
25	Master jaws for braces Nos. 870-872, 769-773, 8130-8133, 730-734	.70
27	Master shells for braces Nos. 8130-8133, 730-734	.60
28	Master ratchet dogs, per pair	.20
29	Master ratchet ring	.25
31	Ratchet dog for braces Nos. 30-34, 730-734 and 770-773, per set (2)	.25
32	Master cam ring	.10
33	Master handle ball cup	.20
34	Master handle ball cup washer	.10
35	Master handle ball cup collar	.10
36	Quill washer	.10
37	Master dog spring	.10
38	Ball-bearing shell for Nos. 870-872 and 769-773	1.90
39	Steel clad for head, polished and nickeled	.50
39	Steel clad for head, tumbled and nickeled	.30
40	Cup washer for chuck screw	.10

Sill Borer or Joist Tool No. 52



This tool is indispensable to car builders, electricians and others who have a great deal of special boring to do, particularly at right angles in cramped places.

The distinguishing feature of the tool is the short head 2⅜ inches only in depth, which permits its use in narrow spaces.

The crank with sweep of twelve inches, and ratchet operating either to right or left, affords ample power for hard boring. Made for wood boring only.

Specifications

Length 23 inches. Depth of head 2⅜ inches.

Chuck—Holds bit shanks only.

Gears, bushings and other working parts of hardened steel.

Ball bearings.

Take up nuts for possible wear on bearings.

Head equipped with patent cup washer and screw which keep spindle from working loose.

Frame malleable iron, japanned.

Other metal parts japanned.

Steadying handle stained hardwood.

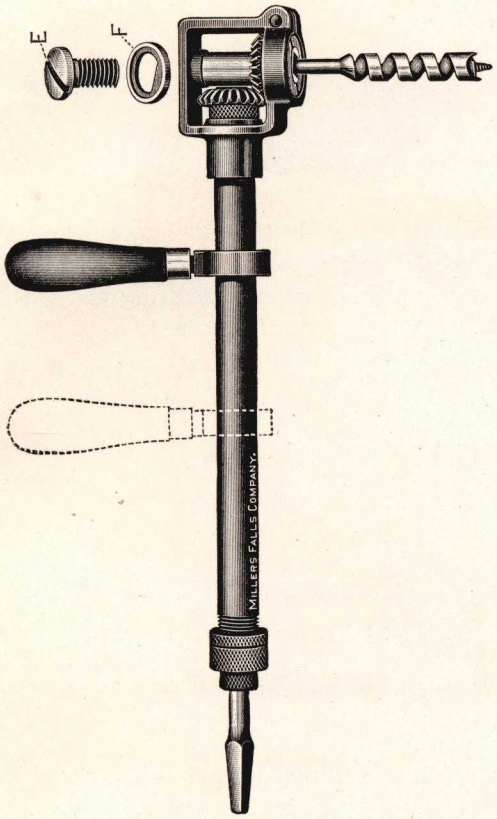
Weight each, 4¾ lbs. Price each, $6.00

Code—Aggravate

Packed one in a pasteboard box.

Note—No. 965 bits, described on page 32, are made especially for this tool.

Sill Borers or Joist Tools



No. 51

No. 51

The head of this tool is identical with, and operates the same as No. 52. The frame instead of having crank and ratchet has a shank fitted for use with bit brace or breast drill.

Specifications

Working parts, except as noted above, same as No. 52.

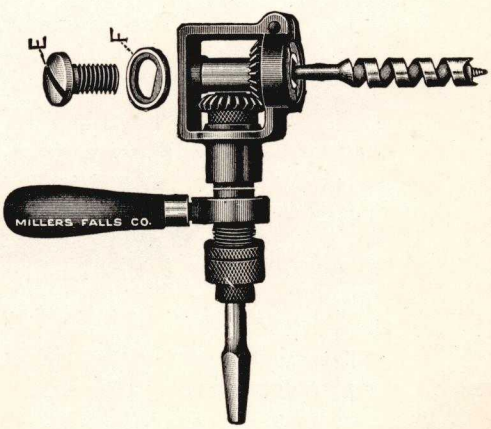
Adjustable steadying handle.

Length 16½ inches.

Weight each, 3 lbs. Price each, $5.00

Code—Aggregate

Packed one in a pasteboard box.



No. 54

No. 54

The same as No. 51, except is 8¼ inches long.

Weight each, 2 lbs. Price each, $4.75

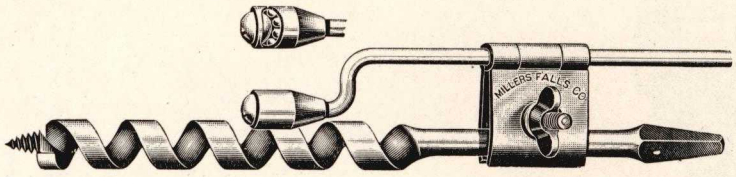
Code—Aggrandize

Packed one in a pasteboard box.

Note—No. 965 ship auger bits, described on page 32, are made especially for these tools.

Bit Gauges

No. 2



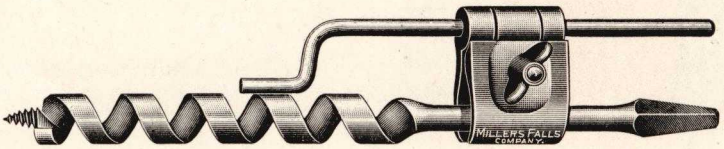
By the use of this tool any number of holes can be bored to a uniform depth. It clamps to shank of any size auger bit, and tightens on the bit and gauge spindle at the same time. Contact ball revolves on ball bearings which reduces friction to a minimum and prevents defacing the most delicate material. Nickel plated. Steel set screw.

Length 5¾ inches. Weight (½ dozen) ¾ lbs. Price each, $ .50

Code—Wapiti

Packed one-half dozen in a pasteboard box.

No. 1



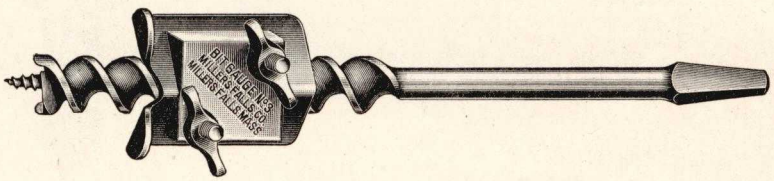
This gauge clamps to shank of bit the same as No. 2, but is without contact ball. For this reason is recommended for common work only. Polished. Steel set screw.

Length 4¾ inches. Weight (½ dozen), 1 lb. Price each, $ .30

Code—Wary

Packed one-half dozen in a pasteboard box.

No. 36



This gauge is clamped to the twist of the bit and securely held by two thumb screws. Two smooth shoes prevent marring the work. Nickel plated. Steel set screws.

Length 2 inches. Weight (½ dozen) 1 lb. Price each, $ .40

Code—Wassail

Packed one-half dozen in a pasteboard box.

MILLERS FALLS TOOLS SINCE 1868

BITS AND AUGERS

In 1916 the Millers Falls Company purchased the stock, machinery and good will of the Ford Auger Bit Company of Holyoke, Mass., a company long famed for the excellence of its products, chiefly the Ford single lip auger bit and Ford ship augers.

Since that time we have more than doubled the output, and have added a number of new augers.

Utmost care is used in the making of each bit. Improved machinery, much of it automatic, insures accuracy and uniformity, and for this reason Millers Falls bits and augers are characterized by their well proportioned lips and spurs, keen cutting edges, and deep, clean cut screws.

Inspection is most thorough and none having the least flaw is stamped "Millers Falls".

The variety of styles, sizes and lengths meets all wood boring conditions, both in this country and abroad.

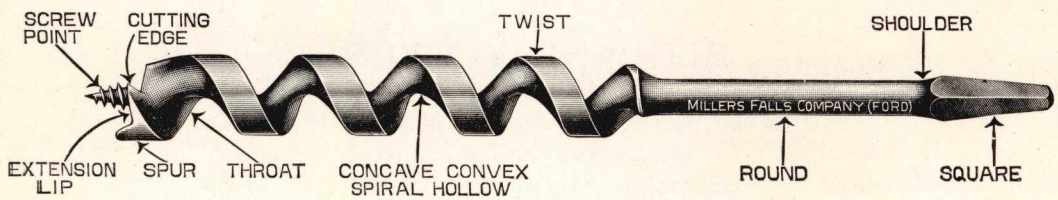
Explanation of Bit and Auger Terms

Bits and Augers are made in a wide range of styles, sizes and lengths.

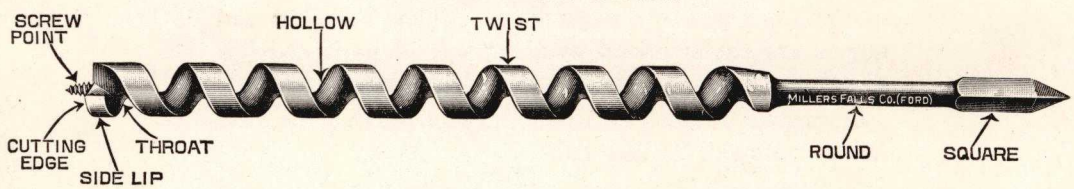
To facilitate both ordering and requests for quotations, particularly bits and augers of special style and length, we illustrate the principal types with the correct name for each part of the tool.

Reference to these illustrations will avoid any possible misunderstanding and save unnecessary correspondence.

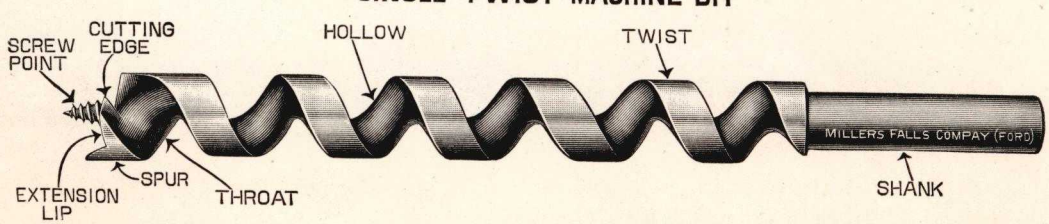
SINGLE TWIST AUGER BIT



SHIP AUGER WITH SCREW



SINGLE TWIST MACHINE BIT



Bit and Auger Heads

The head is the principal working part of a bit. Its formation therefore has much to do with its adaptability for the particular wood to be bored and the type of cut to be made.

The following descriptions of the different heads will be of service in determining the style best suited for any special purpose.

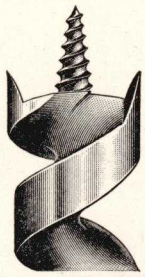


Single Cutter
Extension Lip

Single spur and single cutting edge.

Recommended for general all around boring. Rapid, clean cutting and remarkably easy boring. Particularly adapted for difficult boring in wet, green, very hard, or knotty wood, and boring with the grain.

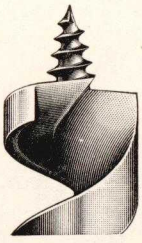
The following stock numbers are made with this head Nos. 531, 533, 551, 431, 231 and 441.



Double Cutter
Extension Lip

Two spurs and two cutting edges. Recommended for furniture and cabinet work, or wherever a particularly smooth hole is essential. Bores easily and clears readily.

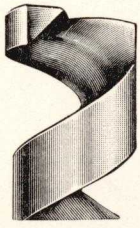
The following stock numbers are made with this head, Nos. 532, 542, 552, 558 and 5512.



Single Cutter
Ship Head with Screw

Recommended for deep boring or in woods with strong grain. Will stand many sharpenings. Does not bore as smooth a hole as types with spur. Used largely in pneumatic and electric boring machines.

The following stock numbers are made with this head, Nos. 921, 922, 931, 912, 918, 971, 965, 941, 962, 952, 961, 958 and 9512.



Single Cutter
Ship Head without Screw

This head is especially recommended for deep boring in wet, pitchy woods, or when particularly straight boring is essential. Having no screw has little tendency to follow or drift with the grain of the wood.

Is widely used in pneumatic and electric boring machines.

The following stock numbers are made with this head, Nos. 812, 818, 871, 861 and 841.

Boring Speed

The pitch of the screw determines the speed of the bit. It is impracticable to make a different pitch for every kind of boring, so we have adopted certain standards which have been proved best for general work.

Some of our bits have single threads, and some have double, depending upon the size of the bit and the nature of the work for which it is intended.

Auger Bits

No. 531



This auger bit with single spur and single cutting edge cuts with less friction than any other type of auger bit, and is unsurpassed for all around boring.

The side opposite the cutting edge is ground down for clearance. This increases the efficiency of the bit in wet, green, spongy, or knotty woods and in boring with the grain.

The deep, single twist allows maximum clearance for the chips; there is no possibility of its clogging.

The bits cuts a clean, smooth hole, rapidly and accurately; draws in with a minimum of pressure; is easily re-sharpened and bores straight through the wood with but little splintering.

Highly polished overall.

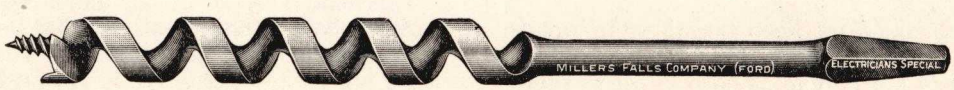
Prices per dozen. Sizes in sixteenths of an inch.

Size	3	4	5	6	6	8	9
Price	$6.00	5.00	5.00	5.00	5.00	5.00	6.00
Size	10	11	12	13	14	15	16
Price	$6.00	7.00	7.00	8.25	8.25	9.50	9.50
Size	17	18	19	20	21	22	23
Price	12.00	12.00	14.00	14.00	16.00	16.00	18.00
Size	24	26	28	30	32		
Price	$18.00	20.00	22.00	24.00	26.00		

Code—Babu

Packed one-half dozen in a pasteboard box up to and including 24/16 inch.
Packed one-fourth of a dozen in a pasteboard box above this size.

No. 533



Electricians and locksmiths in particular will appreciate this bit.

It requires but six turns to go through one inch of timber—just double the speed of No. 531, and nearly three times as fast as the fine double threaded double lip bits.

Recommended for soft woods only. Highly polished overall.

Made in three sizes only

Prices per dozen. Sizes in sixteenths of an inch.

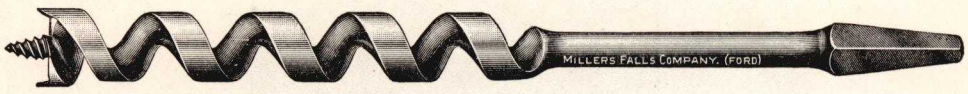
Sizes	10	11	12
Price	$6.00	7.00	7.00

Code—Bandore

Packed one-half dozen in a pasteboard box.

Auger Bits

No. 532



This bit with two spurs and two cutting edges is designed for cabinet making and other fine work where clean, smooth boring is the chief essential. Has the same twist as No. 531, which positively will not clog.

Highly polished overall.

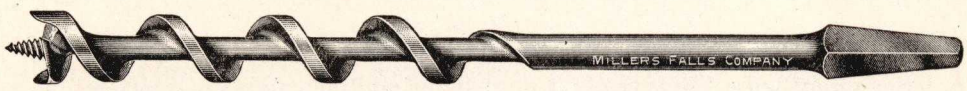
Prices per dozen. Sizes in sixteenths of an inch.

Size	3	4	5	6	7	8	9
Price	$6.00	5.00	5.00	5.00	5.00	5.00	6.00
Size	10	11	12	13	14	15	16
Price	$6.00	7.00	7.00	8.25	8.25	9.50	9.50
Size	17	18	19	20	21	22	24
Price	$12.00	12.00	14.00	14.00	16.00	16.00	18.00

Code—Baccara

Packed one-half dozen in a pasteboard box.

No. 542



The distinguishing feature of this bit is its solid center. The head is identical with No. 532 and has every advantage peculiar to this type of head.

Highly polished overall.

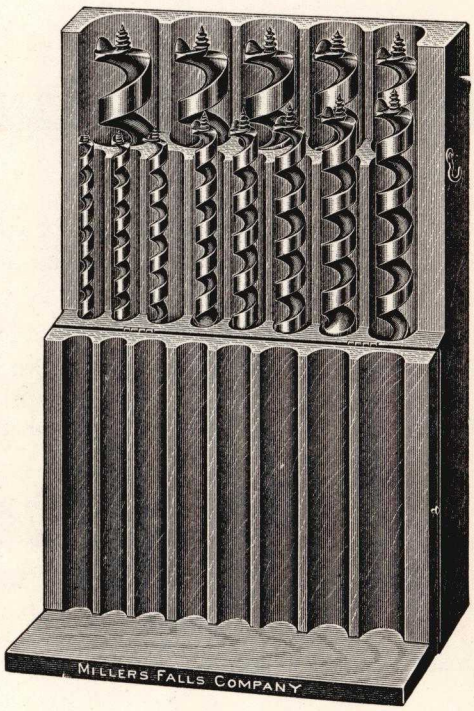
Prices per dozen. Sizes in sixteenths of an inch.

Size	3	4	5	6	7	8	9	10
Price	$4.50	4.00	4.00	4.00	4.50	5.00	5.50	6.00
Size	11	12	13	14	15	16	17	18
Price	$7.00	7.00	8.00	8.00	9.00	9.00	10.50	10.50
Size	19	20	21	22	23	24		
Price	$12.00	12.00	13.50	13.50	15.00	15.00		

Code—Balize

Packed one-half dozen in a pasteboard box.

Auger Bit Sets



Boxes

A full set of bits is an essential to every carpenter or mechanic The advantages of a set in a box or roll are many—the danger of rust is reduced, the cutting edges and points are protected from accidental injury, each bit is instantly available, and is always in its proper place.

The Millers Falls box is of seasoned hardwood, kiln dried; has brass hinges and catch; and is varnished overall. It is a most durable container, especially convenient for shop and bench work.

How to Order

In ordering prefix figure 1 to type of bit wanted and add the number of quarters. For example: 1531—32½ quarters signifies a set of 32½ quarters auger bits No. 531. 1532—14 quarters a set of 14 quarters auger bits No. 532.

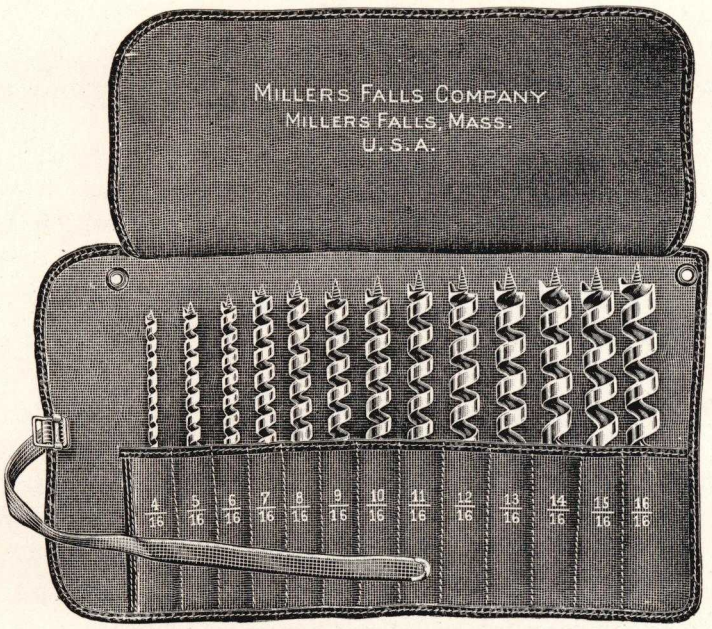
List prices and assortments.

Quarters	Price	Assortment by sixteenths of an inch.
32½	$8.50	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16 one each.
25½	7.00	4, 5, 6, 7, 8, 9, 10, 11, 12, 14 and 16 one each.
24	6.90	4, 5, 7, 9, 11, and 12 one each and 6, 8, and 10 two each.
22½	6.80	5 7, 9, 10, 11, and 12 one each and 4, 6, and 8 two each.
21	6.40	5, 6, 7, 9, 10, 11, and 12 one each and 4 and 8 two each.
20½	5.90	4, 5, 6, 7, 8 10, 12, 14 and 16 one each.
18¾	5.50	4, 5, 6, 8, 10, 12, 14 and 16 one each.
18	5.50	4, 5, 6, 7, 8, 9 10, 11, and 12 one each.
17½	4.75	4, 6, 8, 10, 12, 14, and 16 one each.
15¼	4.50	4, 5, 6, 8, 10, 12, and 16 one each.
14	4.10	4, 6, 8, 10 12 and 16 one each.
11¼	3.75	4, 5, 6, 8, 10, and 12 one each.

Code—No. 1531, Berg *No. 1532, Betty* *No. 1542, Bezel*

Wooden boxes only (without bits) for 32½ quarters (13) bits, each, $1.50.

Auger Bit Sets



Canvas Rolls

A set of auger bits in a canvas roll is particularly handy for use in portable tool kits as it is more compact than a similar set in a box.

The Millers Falls roll is of heavy canvas, edges are bound with imitation leather, and when closed is securely fastened with a canvas strap. Each bit has an individual pocket, with its respective size plainly stamped across the top.

How to Order

In ordering prefix figure 2 to type of bit wanted and add the number of quarters. For example 2531–32½ quarters signifies a set of 32½ quarters auger bits No. 531. 2542–14 quarters a set of 14 quarters auger bits No. 542.

Quarters	Price	Assortment by sixteenths of an inch.
32½	$8.50	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16 one each.
25½	7.00	4, 5, 6, 7, 8, 9, 10, 11, 12, 14, and 16 one each.
24	6.90	4, 5, 7, 9, 11 and 12 one each and 6, 8 and 10 two each.
22½	6.80	5, 7, 9, 10, 11, and 12 one each and 4, 6, and 8 two each
21	6.40	5, 6, 7, 9, 10, 11, and 12 one each and 4 and 8 two each.
20½	5.90	4, 5, 6, 7, 8, 10, 12, 14, and 16 one each.
18¾	5.50	4, 5, 6, 8, 10, 12, 14, and 16 one each.
18	5.50	4, 5, 6, 7, 8, 9, 10, 11, and 12 one each.
17½	4.75	4, 6, 8, 10, 12, 14, and 16 one each.
15¼	4.50	4, 5, 6, 8, 10, 12, and 16 one each.
14	4.10	4, 6, 8, 10, 12, and 16 one each.
11¼	3.75	4, 5, 6, 8, 10, and 12 one each.

Code—No. 2531, Bedim *No. 2532, Behesh* *No. 2542 Belfry*

Canvas rolls only (without bits) for 32½ quarters (13 bits) each, $1.00.

Single Lip Car Bits (Ford)

No. 551



12″ Twist 18″ Overall

This bit has all the features of No. 531 auger bit as it is identical with it except for the length of twist and length overall.

Positively will not clog even when bored to its extreme depth. Highly polished overall.

Prices per dozen. Sizes in sixteenths of an inch.

Size	4	5	6	7	8	9	10
Price	$11.25	11.25	11.25	11.25	11.25	12.50	13.75
Size	11	12	13	14	15	16	17
Price	$15.00	16.25	17.50	19.00	20.50	22.00	24.00
Size		18	20	22	24		
Price		$26.00	30.00	34.00	38.00		

Code—Baobab

Packed one-half dozen in a pasteboard box up to and including 16/16 in.

Packed one-fourth of a dozen in a pasteboard box above this size.

Solid Center Car Bit

No. 552



12″ Twist 18″ Overall

This bit is identical with No. 542 auger bit except for the length of twist, and length overall. Highly polished overall.

Prices per dozen. Sizes in sixteenths of an inch.

Size	4	5	6	7	8	9	10
Price	$11.25	11.25	11.25	11.25	11.25	12.50	13.75
Size	11	12	13	14	15	16	17
Price	$15.00	16.25	17.50	19.00	20.50	22.00	24.00
Size		18	20	22	24		
Price		$26.00	30.00	34.00	38.00		

Code—Barb

Packed one-half dozen in a pasteboard box up to and including 16/16 in.

Packed one-fourth of a dozen in a pasteboard box above this size.

Ship Auger Car Bit (Ford)

No. 922



12″ Twist 18″ Overall

This type of bit without spur is made especially for boring in rough timber, and in woods with a firm grain. Cuts easily and expels chips freely to the full depth of the twist.

20/16 in. and smaller have full polished twist and round. Larger sizes have black hollows.

Prices per dozen. Sizes in sixteenths of an inch.

Size	4	5	6	7	8	9	10
Price	$11.00	11.00	11.00	11.00	11.00	11.00	11.00
Size	11	12	13	14	15	16	17
Price	$12.00	12.00	13.00	13.00	14.50	14.50	16.00
Size	18	19	20	21	22	23	24
Price	$16.00	18.00	18.00	20.00	20.00	23.00	23.00

Code—Barbette

Bits without screw made special to order at 20 % above these prices. Order as No. 822.

Packed one-half dozen in a pasteboard box up to and including 16/16 in.

Packed one-fourth of a dozen in a pasteboard box above this size.

Solid Center Ship Auger Car Bit (Ford)

No. 952



12″ Twist 18″ Overall

This bit is identical with No. 922 except for the twist which is the solid center pattern. All sizes have full polished head, twist and round.

Prices per dozen. Sizes in sixteenths of an inch.

Size	4	5	6	7	8	9	10
Price	$11.00	11.00	11.00	11.00	11.00	11.00	11.00
Size	11	12	13	14	15	16	17
Price	$12.00	12.00	13.00	13.00	14.50	14.50	16.00
Size	18	19	20	21	22	23	24
Price	$16.00	18.00	18.00	20.00	20.00	23.00	23.00

Code—Barilla

Packed one-half dozen in a pasteboard box up to and including 16/16 in.

Packed one-fourth of a dozen in a pasteboard box above this size.

Ship Auger Car Bit (Ford)

No. 921



8″ Twist 12″ Overall

Differs from No. 922 (Page 31) only in length of twist and length overall.

It is made especially for certain car shop and other work where the 12 in. twist is unnecessarily long.

Prices per dozen. Sizes in sixteenths of an inch.

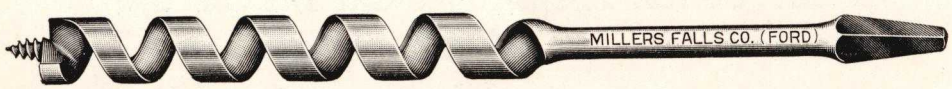
Size	4	5	6	7	8	9	10
Price	$10.00	10.00	10.00	10.00	10.00	10.00	10.00
Size	11	12	13	14	15	16	17
Price	$11.00	11.00	12.00	12.00	13.50	13.50	15.00
Size	18	20	24				
Price	$15.00	16.50	21.00				

Code—Barque

Bits without screw made special to order at 20 % above these prices. Order as No. 821.
Packed one-half dozen in a pasteboard box up to and including 20/16 in.
Packed one-fourth of a dozen in a pasteboard box above this size.

Ship Auger Bit

No. 931



Except for the length of twist and length overall it is identical with No. 921. It is a sturdy bit, will stand rough usage, and is easily re-sharpened.

Code—Basal

No. 965

Identical with No. 931 except has 3″ twist and is 7″ overall. Made especially for use in our Sill Borers or Joist Tools.

Prices per dozen. Sizes in sixteenths of an inch.

Sizes	4	5	6	7	8	9	10
Price	$ 6.00	6.00	6.00	6.00	6.00	7.50	7.50
Sizes	11	12	13	14	15	16	17
Price	$ 9.00	9.00	10.50	10.50	12.00	12.00	13.50
Sizes	18	19	20				
Price	$13.50	15.00	15.00				

Code—Basar

Packed one-half dozen in a pasteboard box.

Ship Augers (Ford)

No. 912



With Screw

Ship Augers are generally used in a wooden auger handle or by means of a metal crank or handle welded to the taper shank.

The twists vary in length according to the size of the auger. Up to and including 20/16 have full polished twists and rounds. Larger sizes have black hollows.

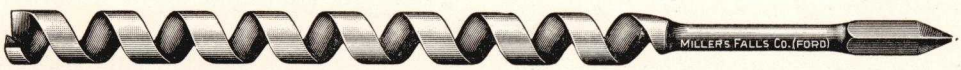
4-5/16	8″ twist 13″ overall
6-7-8/16	10″ twist 14″ overall
9/16-16/16	12″ twist 18″ overall
17/16 up	15″ twist 20″ overall

Prices per dozen. Sizes in sixteenths of an inch.

Size	4–10	11	12	13	14	15	16	17
Price	$11.00	12.00	12.00	13.00	13.00	14.50	14.50	16.00
Size	18	19	20	21	22	23	24	25
Price	$16.00	18.00	18.00	20.00	20.00	23.00	23.00	27.00
Size	26	27	28	29	30	31	32	33–34
Price	$27.00	32.00	32.00	38.00	38.00	45.00	45.00	57.00
Size	35–36	37–38	39–40	41–42	43–44	45–46	47–48	
Price	$72.00	86.00	101.00	115.00	130.00	144.00	158.00	

Code—Barm

No. 812



Without Screw

Identical with No. 912 except has no screw point. Sometimes called "barefoot" augers. Recommended where particularly straight boring is essential, because it will not drift off with the grain of the wood.

Prices per dozen. Sizes in sixteenths of an inch.

Size	4	5	6	7	8	9	10	11
Price	$13.20	13.20	13.20	13.20	13.20	13.20	13.20	14.40
Size	12	13	14	15	16	17	18	19
Price	$14.40	15.60	15.60	17.40	17.40	19.20	19.20	21.60
Size	20	21	22	23	24	25	26	27
Price	$21.60	24.00	24.00	27.60	27.60	32.40	32.40	38.40
Size	28	29	30	31	32			
Price	$38.40	45.60	45.60	54.00	54.00			

Code—Baron

Packed one-half dozen in pasteboard box up to and including 16/16 in.
Packed one-fourth of a dozen in pasteboard box from 17/16 to 30/16 in. inclusive.
Wrapped singly in heavy paper above this size.

Ship Augers (Ford)

No. 918



18″ Twist 24″ Overall

This auger is used principally in dock and bridge work, where a boring depth of 20 to 22 inches is required. All sizes have black hollows.

Prices per dozen. Sizes in sixteenths of an inch.

Size	8	9	10	11	12	13	14
Price	$15.00	16.50	18.00	19.50	21.00	22.80	24.60
Size	15	16	17	18	19	20	21
Price	$26.40	28.20	30.00	31.80	33.60	35.40	37.80
Size	22	23	24	25	26	27	28
Price	$40.20	42.60	45.00	48.00	51.00	54.00	57.00
Size	29	30	31	32			
Price	$60.00	63.00	66.00	69.00			

Code—Bashaw

For prices of sizes with twist in excess of 18 in. see list on page 35.

Eighteen in. twist augers packed one-half dozen in pasteboard box up to and including 16/16 in.
From 17/16 to 24/16 in., packed one-fourth of a dozen in pasteboard box.
Above this size, wrapped singly in heavy paper.

No. 818



Without Screw

The same auger as No. 918 except has no screw point.

Prices per dozen. Sizes in sixteenths of an inch.

Size	8	9	10	11	12
Price	$18.00	19.80	21.60	13.40	25.20
Size	13	14	15	16	17
Price	$27.30	29.50	31.70	33.80	36.00
Size	18	19	20	21	22
Price	$38.40	40.30	42.50	45.40	48.20
Size	23	24	25	26	27
Price	$51.10	54.00	57.60	61.20	64.80
Size	28	29	30	31	32
Price	$68.40	72.00	75.60	78.20	82.80

Code—Bashix

Ship Augers (Ford)

Extra Length Twists

No. 941
With Screw

No. 841
Without Screw

Prices per dozen. Sizes in sixteenths of an inch.

	LENGTH OF TWIST					Each extra
	20 in.	22 in.	24 in.	30 in.	36 in.	6 in. twist
8–16 and under	$18.00	$21.00	.....	.....	.....	.....
9	19.80	23.10	.....	.....	.....	.....
10	21.30	24.60	$27.90	.....	.....	.....
11	23.10	26.70	30.30	.....	.....	.....
12	24.60	28.20	31.80	$42.60	$53.40	$10.80
13	26.70	30.60	34.50	46.20	57.90	11.70
14	28.50	32.40	36.30	48.00	59.70	11.70
15	30.60	34.80	39.00	51.60	64.20	12.60
16	32.40	36.60	40.80	53.40	66.00	12.60
17	34.50	39.00	43.50	57.00	70.50	13.50
18	36.30	40.80	45.30	58.80	72.30	13.50
19	38.40	43.20	48.00	62.40	76.80	14.40
20	40.20	45.00	49.80	64.20	78.60	14.40
21	42.90	48.00	53.10	68.40	83.70	15.30
22	45.30	50.40	55.50	70.80	86.10	15.30
23	48.00	53.40	58.80	75.00	91.20	16.20
24	50.40	55.80	61.20	77.40	93.60	16.20
25	54.00	60.00	66.00	84.00	102.00	18.00
26	57.00	63.00	69.00	87.00	105.00	18.00
27	60.60	67.20	73.80	93.60	113.40	19.80
28	63.60	70.20	76.80	96.60	116.40	19.80
29	67.20	74.40	81.60	103.20	124.80	21.60
30	70.20	77.40	84.60	106.20	127.80	21.60
31	73.80	81.60	89.40	112.80	136.20	23.40
32	76.80	84.60	92.40	115.80	139.20	23.40
33	92.40	100.80	109.20	134.40	159.60	25.20
34	92.40	100.80	109.20	134.40	159.60	25.20
35	102.30	111.60	120.90	148.80	176.70	27.90
36	112.00	122.40	132.60	163.20	193.80	30.60

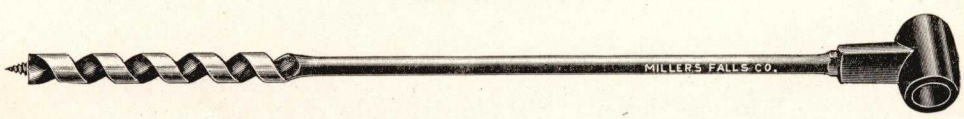
List prices are for No. 941. For No. 841 add 20 %.

Code No. 941—Bashia *Code No. 841—Bashee*

Shanks longer than regular, but nor over 18 ins., add $7.50 per dozen to list price.

Rafting Augers

No. 962



12″ Twist 18″ Overall

This auger is used chiefly for heavy, deep boring, such as log rafts, booms, etc. Has the same style of twist as No. 912 ship auger. The shank is fitted with cast ring as No. 961. Black hollows, and round. Polished edges.

Prices per dozen. Sizes in sixteenths of an inch.

Size	1¼	1½	1¾	2
Price	$32.00	40.00	48.00	56.00
Size	2¼	2½	2¾	3
Price	$66.00	76.00	90.00	105.00

Code—Bayton

Wrapped singly in heavy paper.

Ring Ship Augers (Ford)

No. 961



With Screw

This type of auger is used chiefly in dock and bridge construction. Operated with a wooden or iron handle. Rings are cast and firmly riveted to the shank.

Length of twist is the same as No. 912 ship augers. Overall length 18 to 24 inches in proportion to size of auger.

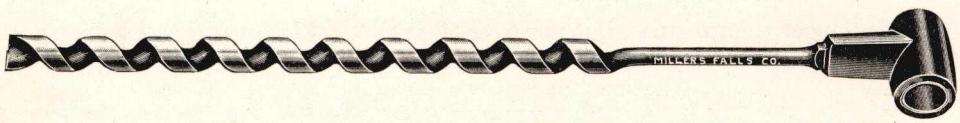
Prices per dozen. Sizes in sixteenths of an inch.

Size	10 (and under)	11 and 12	13 and 14	15 and 16	17 and 18
Price	$15.10	16.20	17.30	18.95	20.60
Size	19 and 20	21 and 22	23 and 24	25 and 26	27 and 28
Price	$22.80	25.00	28.30	32.70	38.20
Size	29 and 30	31 and 32	33 and 34	35 and 36	37 and 38
Price	$44.80	52.50	62.70	79.20	94.60
Size	39 and 40	41 and 42	43 and 44	45 and 46	47 and 48
Price	$111.10	126.50	143.00	158.40	173.80

Code—Basil

Wrapped three in a paper and six in a package up to and including 16/16 in. Above this size, three in a package.

No. 861



Without Screw

Identical with No. 961 except has no screw.

Prices per dozen. Sizes in sixteenths of an inch.

Sizes	10 (and under)	11 and 12	13 and 14	15 and 16	17 and 18
Price	$18.10	19.40	20.75	22.75	24.70
Sizes	19 and 20	21 and 22	23 and 24	25 and 26	27 and 28
Price	$27.35	30.00	33.95	39.25	45.85
Sizes	29 and 30	31 and 32	33 and 34	35 and 36	37 and 38
Price	$53.73	63.00	75.25	95.05	113.50
Sizes	39 and 40	41 and 42	43 and 44	45 and 46	47 and 48
Price	$133.30	151.80	171.60	190.10	208.55

Code—Basque

Wrapped six in a package up to and including 16/16 in. Above this size, three in a package.

Solid Center Ring Augers



Extension Lip Head

No. 558

8″ Twist 18″ Overall

No. 5512

12″ Twist 24″ Overall

Cast rings firmly riveted to shank. Polished twist and round.

Prices per dozen. Sizes in sixteenths of an inch.

Size	10 (and under)	11 and 12	13 and 14	15 and 16	17 and 18
Price	$12.00	13.00	14.00	15.00	16.50

Size	20	22	24	26	28	32
Price	$18.25	20.00	22.75	24.50	26.75	30.00

Code No. 558—Bayter

Code No. 5512—Baytis

One-quarter of a dozen in a package, wrapped in heavy paper.

Ship Auger Head



No. 958

8″ Twist 18″ Overall

No. 9512

12″ Twist 14″ Overall

Prices per dozen. Sizes in sixteenths of an inch.

Size	10 (and under)	11 and 12	13 and 14	15 and 16	17 and 18
Price	$12.00	13.00	14.00	15.00	16.50

Size	20	22	24	26	28	32
Price	$18.25	20.00	22.75	24.50	26.75	30.00

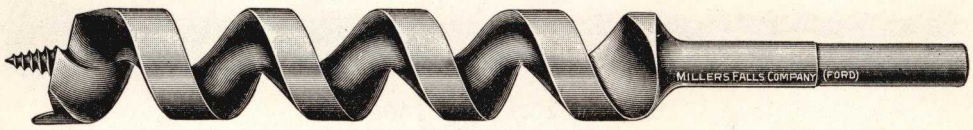
Code No. 958—Bayson

Code No. 9512—Bayex

One-quarter of a dozen in a package, wrapped in heavy paper.

Boring Machine Augers

No. 231



8″ Twist 12″ Overall

These augers are for use in hand boring machines as shown on page 46. Cut smoothly, rapidly and will not bind or choke. Full polish overall.

Prices per dozen. Sizes in sixteenths of an inch.

Size	3/8	1/2	5/8	3/4	7/8	1
Price	$10.00	10.00	10.00	11.00	13.00	15.00
Size	1 1/8	1 1/4	1 3/8	1 1/2	1 3/4	2
Price	$17.00	19.00	21.00	24.00	28.00	32.00

Code—Bayou

All sizes wrapped three in a package.

Augers in Sets

	18	23	41 quarters
Price, per set	$6.00	7.50	13.50
Sizes	1, 1 1/2, 2 in.	1, 1 1/4, 1 1/2, 2 in.	1/2, 5/8, 3/4, 7/8, 1, 1 1/4, 1 1/2, 1 3/4, 2 in.
Code	*Dernier*	*Derrick*	*Dervish*

Power Machine Bits

No. 431



Single Twist—Extension Lip

This pattern has the same head as our No. 531 auger bit and is recommended when smooth boring is essential. The following lengths and sizes are carried in stock.

6 in. Twist . . . . . 4–18/16 inc. 20, 22, 24/16
8, 10, and 12 in. Twist . . 6–18/16 inc. 20, 22, 24/16
14 in. and 16 in. Twist . . 8–18/16 inc. 20, 22, 24/16

All other sizes up to 32/16 made special to order.

Unless otherwise specified, shanks are furnished 1/2 in by 2 in.

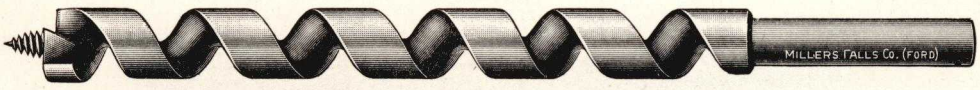
Straight shanks of any diameter not exceeding 3 in. in length furnished without extra charge. For shanks exceeding 3 in. in length an extra charge of three cents per inch net is made.

Morse and special taper shanks quoted on application.

Code—Basset

Power Machine Bits

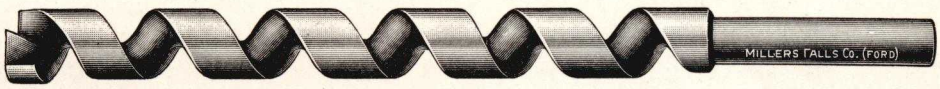
No. 971



Ship Auger Head—With Screw

This type of machine bit has the same stiff, strong twist as our No. 912 ship augers. For this reason it is particularly adapted for boring to extreme depths. Frequently referred to as a pneumatic auger. Forged special to order. *Code—Baton.*

No. 871



Without Screw

The same as No. 971 except without screw. Is less liable to follow the grain in end grain boring than any auger with screw. Forged special to order.

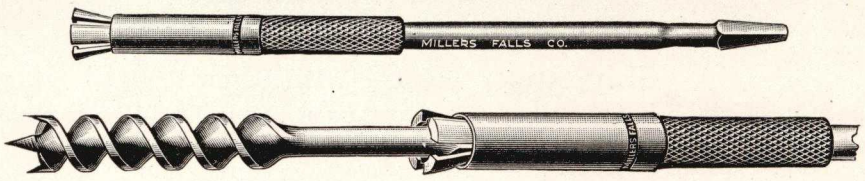
Prices per dozen. *Code—Bay* Sizes in sixteenths of an inch.

Prices are for Nos. 431 and 971—for No. 871 add twenty per cent.

Size 16th in.	6 in. twist	8 in. twist	10 in. twist	12 in. twist	14 in. twist	16 in. twist	18 in. twist	Each extra 2 in. twist
8	$10.80	$12.96	$15.12	$17.28	$19.44	$21.60	$23.76	$2.16
9	12.00	14.40	16.80	19.20	21.60	24.00	26.40	2.40
10	13.20	15.84	18.48	21.12	23.76	26.40	29.04	2.64
11	14.40	17.28	20.16	23.04	25.92	28.80	31.68	2.88
12	15.60	18.72	21.84	24.96	28.08	31.20	34.32	3.12
13	16.80	20.16	23.52	26.88	30.24	33.60	36.96	3.36
14	18.00	21.60	25.20	28.80	32.40	36.00	39.60	3.60
15	19.20	23.04	26.88	30.72	34.56	38.40	42.24	3.84
16	20.40	24.48	28.56	32.64	36.72	40.80	44.88	4.08
17	21.60	25.92	30.24	34.56	38.88	43.20	47.52	4.32
18	22.80	27.36	31.92	36.48	41.04	45.60	50.16	4.56
19	24.00	28.80	33.60	38.40	43.20	48.00	52.80	4.80
20	25.20	30.24	35.28	40.32	45.36	50.40	55.44	5.04
21	26.40	31.68	36.96	42.24	47.52	52.80	58.08	5.28
22	27.60	33.12	38.64	44.16	49.68	55.20	60.72	5.52
23	28.80	34.56	40.32	46.08	51.84	57.60	63.36	5.76
24	30.00	36.00	42.00	48.00	54.00	60.00	66.00	6.00
25	31.50	37.80	44.10	50.40	56.70	63.00	69.30	6.30
26	33.00	39.60	46.20	52.80	59.40	66.00	72.60	6.60
27	34.50	41.40	48.30	55.20	62.10	69.00	75.90	6.90
28	36.00	43.20	50.40	57.60	64.80	72.00	79.20	7.20
29	37.50	45.00	52.50	60.00	67.50	75.00	82.50	7.50
30	39.00	46.80	54.60	62.40	70.20	78.00	85.80	7.80
31	40.50	48.60	56.70	64.80	72.90	81.00	89.10	8.10
32	42.00	50.40	58.80	67.20	75.60	84.00	92.40	8.40
33	43.80	52.56	61.32	70.08	78.84	87.60	96.36	8.76
34	45.60	54.72	63.84	72.96	82.08	91.20	100.32	9.12
35	47.40	56.88	66.36	75.84	85.32	94.80	104.28	9.48
36	49.20	59.04	68.88	78.72	88.56	98.40	108.24	9.84
37	51.00	61.20	71.40	81.60	91.80	102.00	112.20	10.20
38	52.80	63.36	73.92	84.48	95.04	105.60	116.16	10.56
39	54.60	65.52	76.44	87.36	98.28	109.20	120.12	10.92
40	56.40	67.68	78.96	90.24	101.52	112.80	124.08	11.28
42	60.60	72.72	84.84	96.96	109.08	121.20	133.32	12.12
44	64.80	77.76	90.72	103.68	116.64	129.60	142.56	12.96
46	69.00	82.80	96.60	110.40	124.20	138.00	151.80	13.80
48	73.20	87.84	102.48	117.12	131.76	146.40	161.04	14.64
50	78.00	93.60	109.20	124.80	140.40	156.00	171.60	15.60
52	82.80	99.36	115.92	132.48	149.04	165.60	182.16	16.56
54	87.60	105.12	122.64	140.16	157.68	175.20	192.72	17.52
56	92.40	110.88	129.36	147.84	166.32	184.80	203.28	18.48

Bit Extensions

No. 5



Designed to follow a 5/8" bit or larger into its bore, but not guaranteed when used with bits over 11/16. Bit are inserted and released easily and quickly. The chuck is made of a special tool steel unsurpassed for strength and toughness. The jaws are steel, spring tempered, and hold the bit securely.

The socket is screwed and pinned to the rod. Shearing strain is overcome by pinning off center.

The knurled nut is made extra long to give a firm grip. Polished overall.

Length	12 in.	15 in.	18 in.	21 in.	24 in.	30 in.
Weight, each	9 oz.	10 oz.	12 oz.	13 oz.	15 oz.	17 oz.
Price, each	$1.90	1.95	2.00	2.05	2.10	2.20
Code	*Camphor*	*Canal*	*Canard*	*Candid*	*Cane*	*Canine*

Packed one in a pasteboard box.

No. 35

(Improved)



Follows 11/16 bit or larger. Not recommended for Bits larger than 12/16, although is of ample strength to turn a 7/8 bit.

Having but two jaws allows extra wide surface to withstand twisting strain.

Print in jaws conforms to shape of auger Bit Shank, perfect alignment, no wobbling.

Jaws are removable. Easily and quickly replaced.

Adjusting nut heavily knurled. Gives positive grip. Threaded for rapid adjustment. Upper portion of adjusting nut of hex stock to permit tightening with wrench.

Chuck shell of extra heavy steel tubing. Polished overall.

Lengths	12 in.	15 in.	18 in.	21 in.	24 in.	30 in.
Weight each	10 oz.	11 oz.	13 oz.	14 oz.	16 oz.	18 oz.
Price	$1.95	2.00	2.05	2.10	2.20	2.30
Code	*Cabine*	*Cabouse*	*Cabiola*	*Cacklo*	*Caddie*	*Cadence*

Packed one in a pasteboard box.

Bit Extensions

No. 11



This is a neat, strong extension, combining strength with light weight.

The shell and knurled nut are made of seamless steel tubing, the socket and shank of cold rolled steel. Shank is forced into socket and pinned.

Coarse thread on nut holds securely and works rapidly. Polished overall. Follows an 11/16 bit or larger, but not recommended for bits larger than 12/16.

Length	15 in.	18 in.	24 in.
Weight, each	12 oz.	15 oz.	20 oz.
Price each	2.05	2.10	2.20
	Code 15 in.—Camber	*Code 18 in.—Camel*	*Code 24 in.—Camisade*

Packed one in a pasteboard box.

No. 1



A heavy, rugged extension designed especially for work requiring bits larger than 12/16. Has master chuck of same construction as that used on Millers Falls Braces. Holds any bit from the smallest to the expansive type. Chuck is screwed and soldered to rod. Shank is forged down to give brace or breast drill jaws a better grip. Polished overall. Unexcelled for plumbers' and millwrights' use.

Length	18 in.	24 in.
Weight, each	1¾ lbs.	2¼ lbs.
Price each	$2.15	2.25
	Code 18 in.—Cache	*Code 24 in.—Cactus*

Packed one in a pasteboard box.

No. 6



Extensible type which makes it unnecessary to carry extensions of different lengths. The outer sleeve telescopes over the inner spindle and engages it at intervals of 1½ inch, as desired, Chuck is the same as on No. 5 extension.

Length collapsed, 16½ in.

Length extended to extreme 24 in.

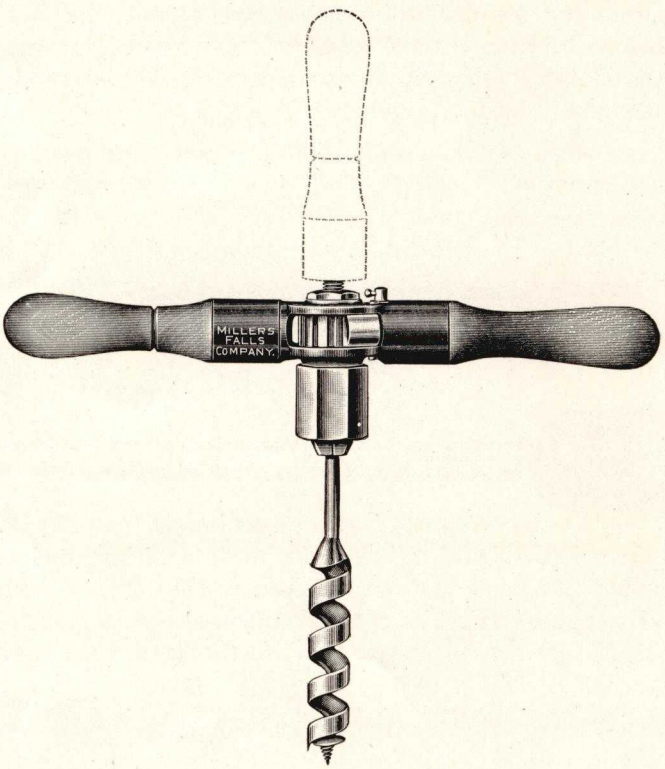
Weight each, 17 oz. Price each, $2.50

Code—Canister

Packed one in a pasteboard box.

Ratchet Auger Handle

No. 4



The feature of this handle is its ratchet construction—operating both to right and left by means of small lever. This permits its working effectively in close corners and other awkward places.

Steadying handle is detachable and can be attached to top as illustrated. Handle can be locked and used without ratchet if desired.

Chuck holds practically all sizes of bit stock and auger shanks.

Hardwood handles. Chuck shell japanned. Other metal parts nickeled.

Length 15 inches. Weight each, 2¾ lbs. Price each, $4.15

Code—Aggress

Packed one in a pasteboard box.

Auger Handles

No. 3



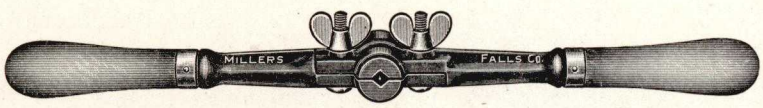
A light, yet strong handle. Single set screw. Tightening on malleable casting holds securely all ordinary bit and auger shanks. Hardwood handles. Frame japanned black.

Length 16 inches — Weight (¼ doz.) 4¼ lbs. — Price each, $1.25

Code—Agile

Packed one-quarter of a dozen in a pasteboard box.

No. 03



Identical with No. 3 except that it has two set screws.

Length 16 inches — Weight (¼ doz.) 4¼ lbs. — Price each, $1.10

Code—Agio

Packed one-quarter of a dozen in a pasteboard box.

No. 2



A stout hardwood handle. Augers are held by two 3-in. steel clamps, which open wide enough to admit all sizes of bit and all except the largest sizes of ship auger shanks. Clamps securely held by two set screws.

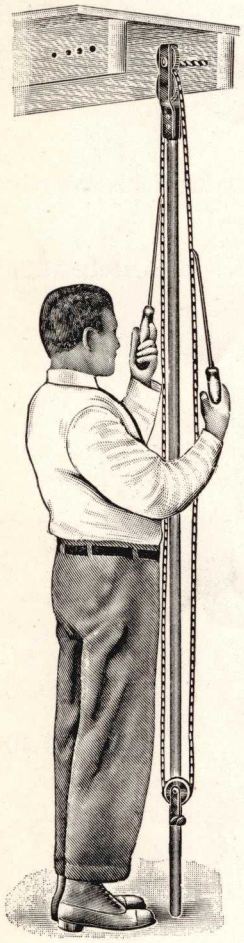
Length 17 inches — Weight (½ doz.) 9 lbs. — Price each, $ .85

Code—Agnes

Packed one-half dozen in a pasteboard box.

Electrician's Boring Machine

No. 144



This machine is primarily for electricians use, although it is frequently used by carpenters and millwrights, who have occasion to bore in overhead joists.

It is rapid acting and will soon pay for itself in actual time saved.

How it Operates

The head is equipped with a double ratchet which forces the bit forward *continuously* as the operator pulls the handles up and down.

The *quicker the pull,* the *faster the boring.* This double ratchet construction is patented. It is not found in any other machine.

Special Features

Head less than three inches thick—can be used in the narrowest places.

Interchangeable hardened bearings—runs frictionless.

Bits will clear without reverse motion.

Adjustable from 7 to 12 feet. Can be lengthened to 16 feet at small additional cost.

One each 10 and 11/16 in. bits furnished free with each machine.

Below boring attachment for work in old buildings furnished without extra charge.

Tempered steel tubes. Steel sprockets. Strong steel chain. Hardwood handles.

Weight boxed 40 lbs., net 18 lbs. Price each, $32.00

Code—Durance

Packed one in a wooden case.

Auger Bit Fitted For Machine

No. 441

This bit is made specially for the No. 144 machine and cannot be purchased at hardware stores in general.

It has a hole drilled in the end of round shank to take cotter pin which holds bit in the machine.

Carried in stock in three sizes and two lengths—3 in. twist, 6 in. overall, and 4½ in. twist, 7½ in. overall. Sizes and prices per dozen.

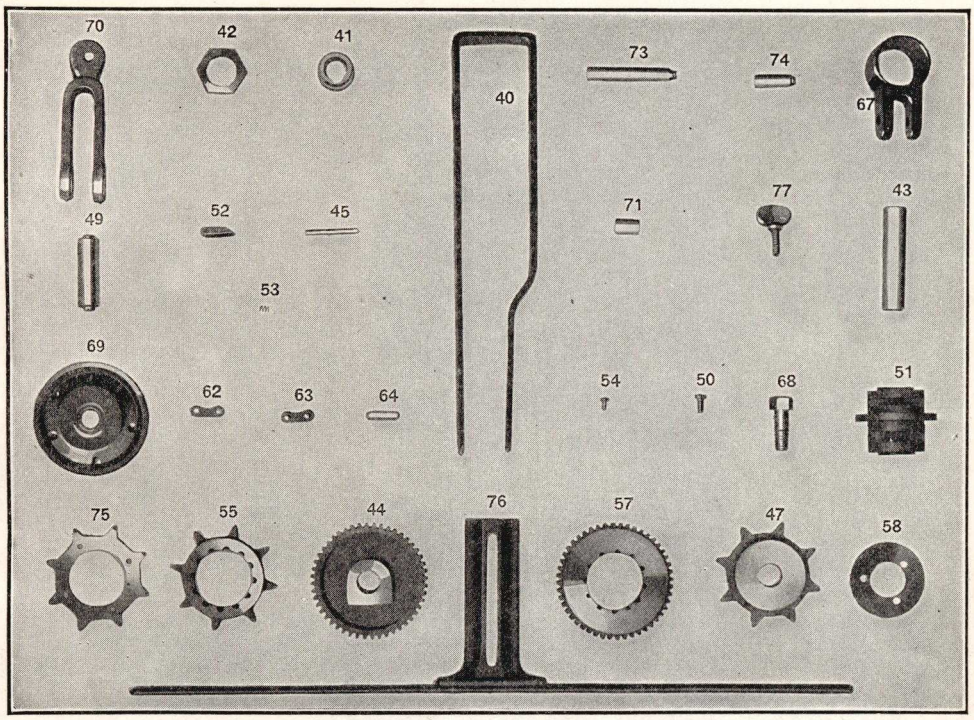
10/16 in.	11/16 in.	12/16 in.
$6.00	7.00	7.00

Code—Beck

Packed one-half dozen in a pasteboard box.

Repair Parts for Boring Machine

No. 144



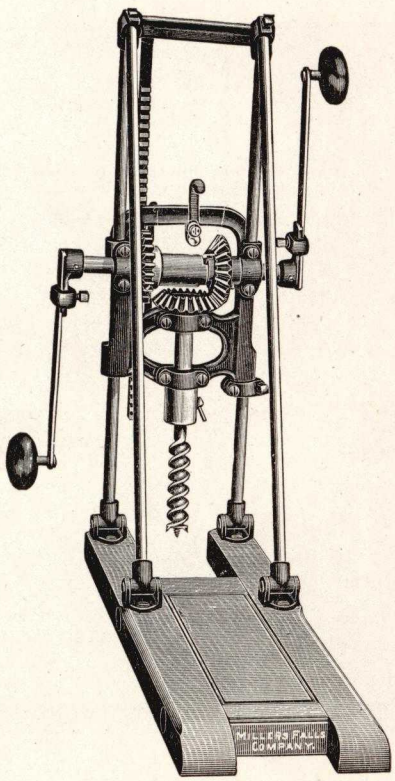
Ordering by number will avoid possible error and save unnecessary correspondence.

No.	*Name of Part*	*Price*
40	Frame	$3.75
41	Frame Bearing Bushing	.25
42	Frame Bearing Bushing Nut	.20
43	Frame Spindle	.25
44	Spindle Gear	.75
45	Gear Taper Pin	.10
47	Spindle Sprocket Complete	1.75
48	Spindle Sprocket Bushing Pin	.10
49	Idle Spindle	.20
50	Idle Spindle Screw	.15
51	Idle Spindle Ratchet Sleeve	3.15
52	Idle Spindle Ratchet Dog	.25
53	Idle Spindle Ratchet Dog Spring	.15
54	Idle Spindle Sleeve Sprocket Screw	.10
55	Idle Spindle Collar Sprocket, complete	1.50
57	Idle Spindle Spur Gear	.95
58	Idle Spindle Washer	.15
59	Short Chain, 14 in.	.45
60	Long Chain, 96 in.	3.15

No.	*Name of Part*	*Price*
61	Long Chain, 61 in	$2.25
62	Side Link	.10
63	Connecting Link	.10
64	Connecting Link Lock	.10
65	Large Tubes, $1\frac{1}{4}$ x 18 ga. x 6 ft.	3.75
66	Small Tubes, $1\frac{1}{8}$ x 18 ga. x 6 ft.	3.75
67	Large Tube Clamp	.40
68	Large Tube Clamp Screw	.10
69	Shive Pulley	.45
70	Clevis	.30
71	Pulley Bushing	.15
72	Pulley Pin	.10
73	Long Stop Screw	.10
74	Short Stop Screw	.10
75	Idle Spindle Ratchet Sleeve Sprocket	.75
76	Below Boring Attachment, complete	1.00
77	Below Boring Attachment Thumb Screw	.15
78	Wood Handles, per pair	1.00

Boring Machine

No. 145



An improved machine made especially for carpenters. Used largely for house framing, boring railroad ties, and other boring where speed and large capacity are essential.

Specifications

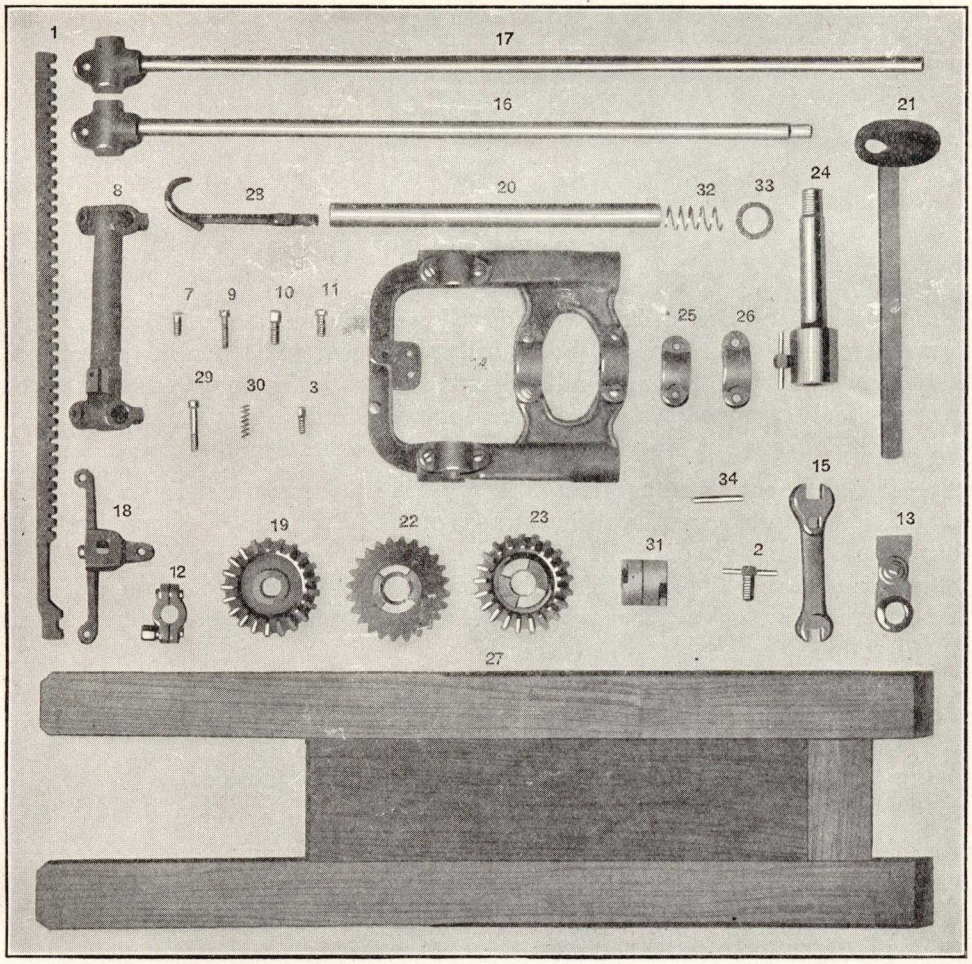
Bores vertically or at any angle within an arc of 50 degrees.
Frame locks automatically at topmost point—released by thumb latch.
Raises automatically by turning handles as in boring.
Adjustable cranks regulate speed and power.
Boring depth 12 inches. Made to order for greater depths.
Spindle cranks, uprights and angle rods of steel. Wood bottom board.
Steel and machined parts polished, other metal parts japanned.
Handles stained hardwood.

Height 25 in. Weight boxed 45 lbs., net 28 lbs. Price (without augers), $18.00

Code—Derm

For list prices of augers see page 38.

Repair Parts of Boring Machine
No. 145



Ordering by number will avoid possible error and save unnecessary correspondence.

No.	*Name of Part*	*Price*	*No.*	*Name of Part*	*Price*
1	Rack	$ .90	19	Spindle Gear	$ .65
2	Chuck Set Screw	.10	20	Arbor	.40
3	Short Rod Set Screw	.10	21	Flat Handle, complete	.60
			22	Rack Gear	.75
7	Arbor Cap Screw or Spider Screw	.10	23	Arbor Gear	.75
8	Top Cap	1.05	24	Chuck Spindle, complete	1.25
9	Hook Screw (short) or Rack Screw	.10	25	Arbor Cap	.10
10	Long Rod Set Screw	.10	26	Spindle Cap	.10
11	Spindle Cap Screw	.10	27	Table	2.20
12	Stop, Complete	.30	28	Hook	.20
13	Crank Casting, complete	.30	29	Hook Screw (long)	.10
14	Frame	3.45	30	Hook Spring	.10
15	Wrench	.25	31	Clutch	.25
16	Short Rod, complete	1.15	32	Gear Spring	.10
17	Long Rod, complete	1.20	33	Gear Washer	.10
18	Spider, complete	.40	34	Taper Pin	.10

HAND AND BREAST DRILLS

Millers Falls Hand and Breast Drills as made today are the result of over fifty years of accumulated experience of expert mechanics. Each drill is designed and made in the same thorough manner that characterizes the building of all Millers Falls tools, and each one is for its price the best value that money and brains coupled with the most improved machinery can produce.

There is a size and type for every drilling purpose and to suit every individual fancy.

Chucks—The inner construction of the Millers Falls Chuck is of particular note. The jaws are opened and closed by springs situated in the base of the Chuck, in such a position that it is impossible to get the Drill in back of them. *They cannot get jammed or knocked out.*

This Chuck is used on all breast drills and on all hand drills with capacity of ¼″, ⅜″ and No. 104. Other drills have springless three jaw Chuck, which grips accurately all round shanks up to its capacity.

The Chuck shells are made longer than necessary in order to give a more comfortable hand grip in tightening.

Limit gauges are used for tapping and threading the Chuck sockets and shells and for threading and machining the spindles. Absolute accuracy and uniformity is assured.

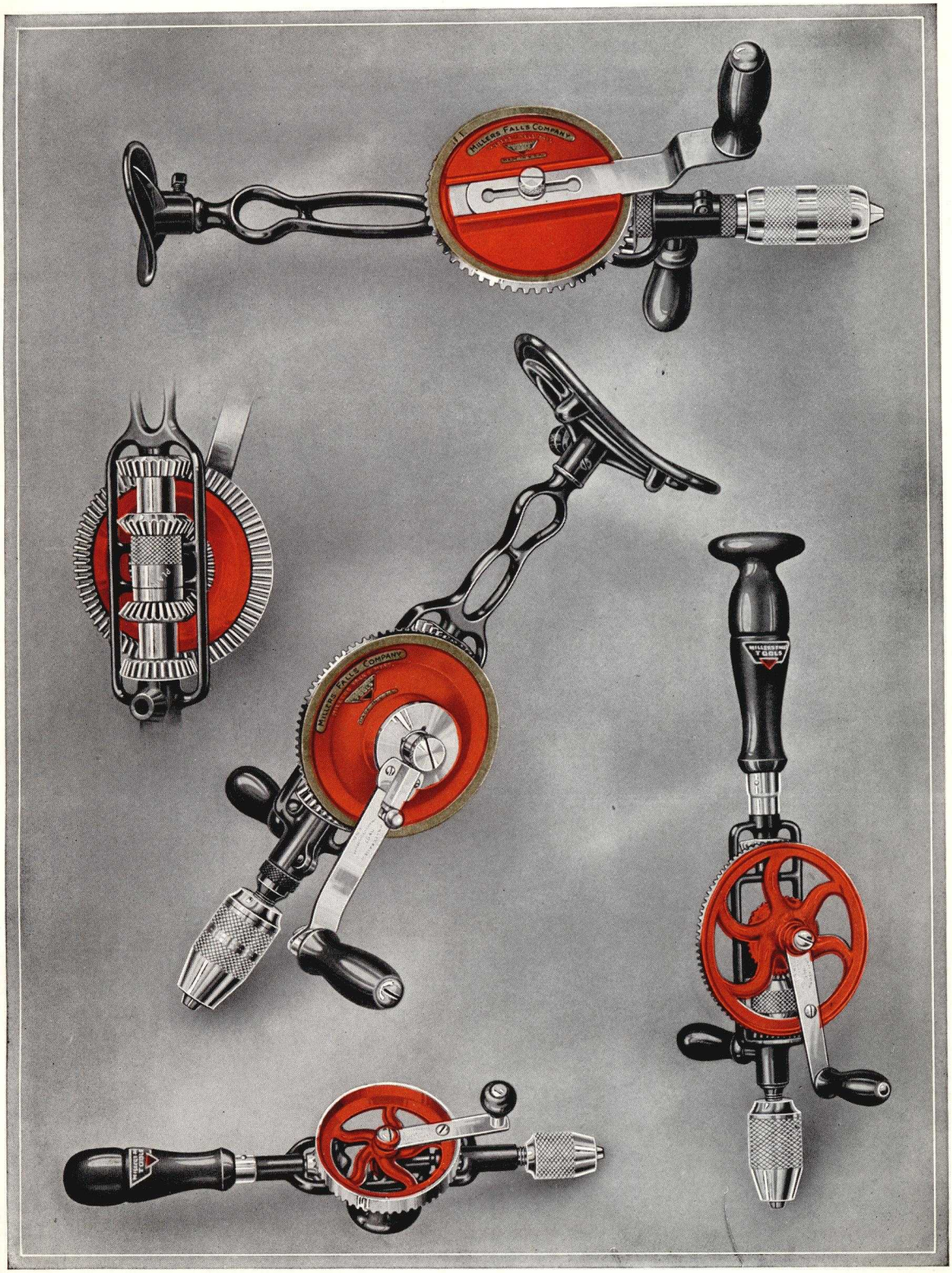
Gears and Pinions—The gears are made from close grained grey iron. The pinions are steel. Both have cut teeth, which mesh perfectly. This insures smooth running and long wear.

Frames—Malleable iron and steel frames are accurately machined. The former are heavily enameled a glossy black and the latter polished and nickeled.

Handles—Handles are made from the finest tropical and native hard woods and are highly polished. They are turned in our own woodworking shop, and are designed for comfort as well as for strength and utility.

Finish—All our hand and breast drills are now made with an improved finish. The large gears are enamelled a rich red by a new process which imparts a velvet like smoothness. On each breast drill gear is placed a decalcomania showing our name and trade mark. The hand drill handle bears our trade mark in colors by means of a transfer sticker.

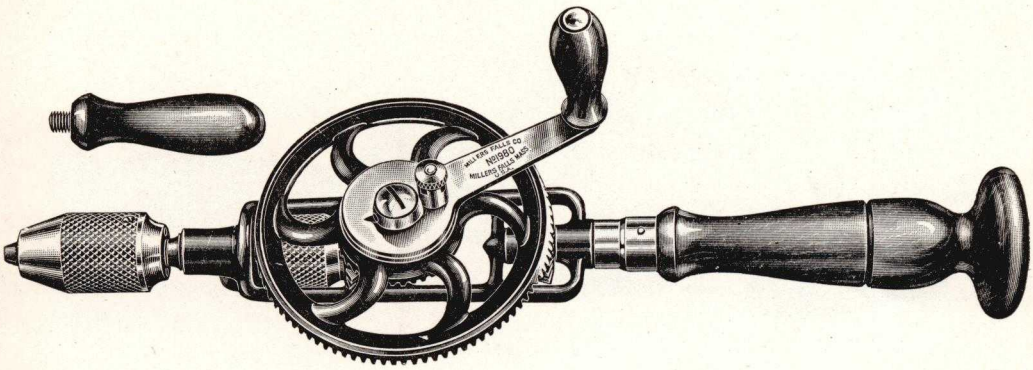
The color insert illustrates this new finish. Millers Falls Drills now combine quality and appearance as never before.



Hand Drills and Breast Drills with new finish

Hand Drill (Ratchet)

No. 1980



Because of its size and chuck capacity this drill frequently serves every drilling purpose. The mushroom shaped handle comfortably fits the hand and rests easily against the body. The ratchet is rapid, easily operated, and permits working in places inaccessible with the ordinary hand drill.

Speed is instantly changed by rotating knurled sleeve on spindle. Both speed and ratchet can be shifted without removing drill from the work.

Specifications

Ratchet—left or right operated by cap on crank handle.
Two speeds—gear ratios 1½ to 1 and 4 to 1.
Chuck—three jaw; protected springs; capacity 0-3/8 in. round shank drills.
Cut Gears.
Pinions—steel, cut teeth, enclosed for protection.
Idler gear to counteract outward thrust of large gear.
Ball thrust bearing on spindle.
Hollow end main handle.
Side handle removable. Both of stained hardwood.
Frame—malleable iron, enameled black.
Large gear, red. Other metal parts nickled.

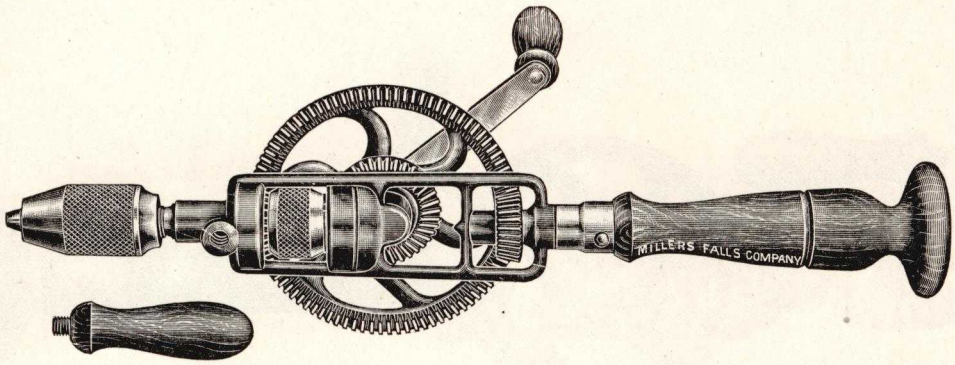
Length 15¾ inches. Weight each, 3¼ lbs. Price each, without drills, $6.15

Code—Dab

Packed one in a pasteboard box.

Hand Drills

No. 980



This drill is identical with No. 1980 except that it does not have the ratchet action.

The convenience of the speed shifter on both of these drills will be particularly appreciated when it is necessary to slow up quickly from high speed. A half turn on the knurled barrel changes the speed within a fractional part of a revolution and without removing the drill from the work.

Length 15¾ inches Weight each, 3⅛ lbs. Price each without points, $5.25

Code—Dace

No. 980D

With Twist Drills

To meet a growing demand for a hand drill completely equipped for metal drilling, we offer No. 980D. It is the same drill as No. 980, but has in the hollow end handle six twist drill points of the following sizes.

1/8″, 5/32″, 3/16″, 7/32″, 1/4″, 9/32″.

Automobile mechanics in particular will appreciate this tool.

Specifications

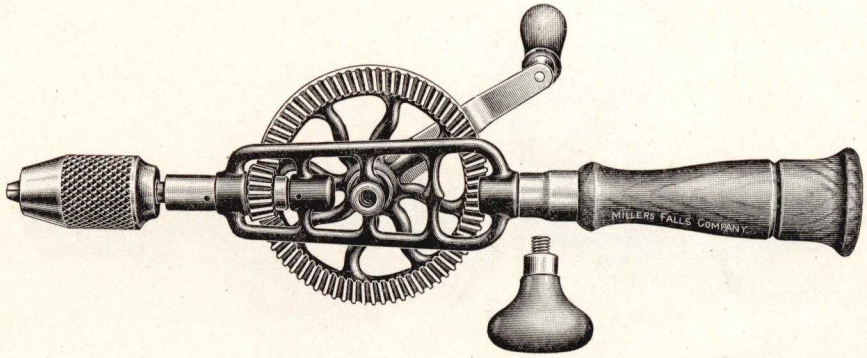
Identical with No. 980.

Weight each, 3¼ lbs. Price each including drills, $6.35

Code—Dacell

Hand Drills

No. 2



A strong, serviceable tool. The flat end on main handle rests comfortably against the body for hard drilling.

Specifications

Chuck—three jaw. Protected springs Capacity 0–⅜ in., round shank drills.
Single speed. Ball thrust bearing. Cut gears. Steel pinion.
Adjustable friction roll to equalize bearings. Side handle detachable.
Hollow end main handle of cocobolo containing eight wood boring points.
Malleable iron frame, enameled black. Large gear enameled red. Other metal parts nickeled.

Length 14½ inches. Weight each, 2½ lbs. Price each (including points) $4.35

Code—Dagger

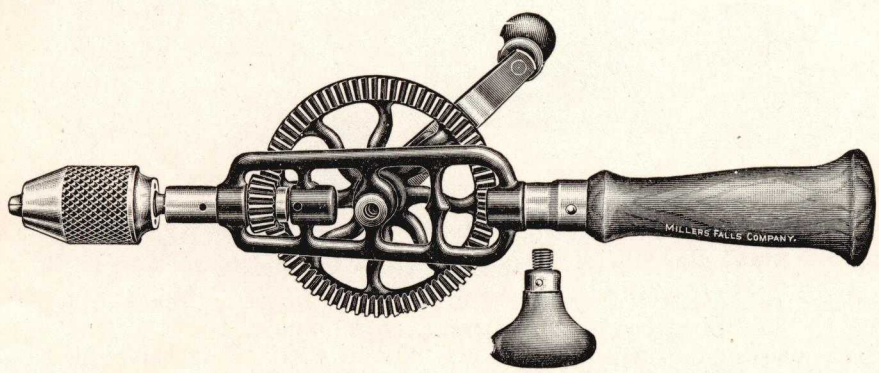
Packed one in a pasteboard box.

No. 2D

The same drill equipped with six twist drills for metal drilling, instead of the wood boring points.

Weight each, 2½ lbs. *Code—Dagest* Price each (with drills), $5.35

No. 2B



The same drill as No. 2 except that the main handle is solid and both main and crank handles are of native hardwood.

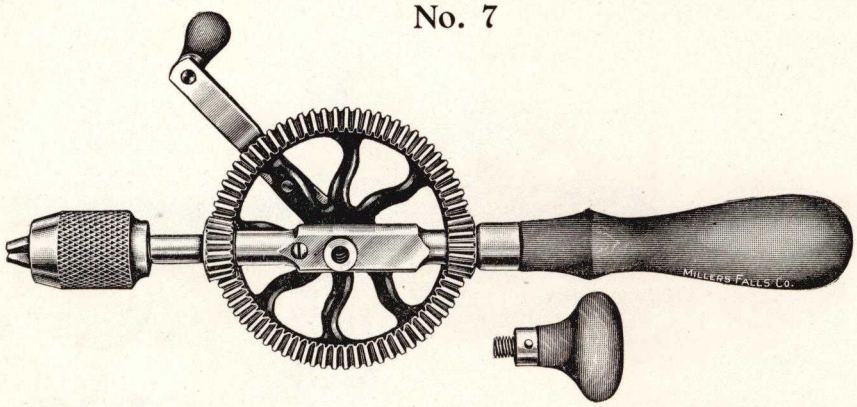
Length 14½ inches. Weight each, 2¼ lbs. Price each (without drills) $3.85

Code—Dago

Packed one in a pasteboard box.

Hand Drills

No. 7



Differs from our other large drills mainly because it has solid steel frame.

Specifications

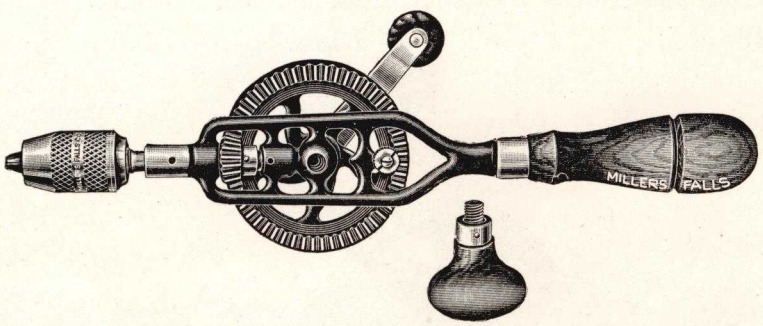
Chuck—3 jaw. Protected springs. Capacity 0–⅜ in., round shanks.
Single speed. Steel pinions. Cut gears. Idler pinion to equalize bearings.
Handles stained hardwood Main handle solid, side handle detachable.
Large gear enameled red. All other metal parts polished.

Length 12½ inches. Weight each, 2 lbs. Price each (without points), $3.50

Code—Dash

Packed one in a pasteboard box.

No. 105



Meets a demand for a small hand drill with chuck capacity of ¼ inch.

Specifications

Chuck—three jaw. Protected springs. Capacity 0–¼ in., round shank drills.
Single speed. Ball thrust bearing. Cut gears. Steel pinion.
Adjustable equalizing bearing to prevent play of large gear. Detachable side handle.
Hollow end main handle of cocobolo, containing eight wood boring points.
Malleable iron frame, enameled black. Large gear enameled red. Other metal parts nickeled.

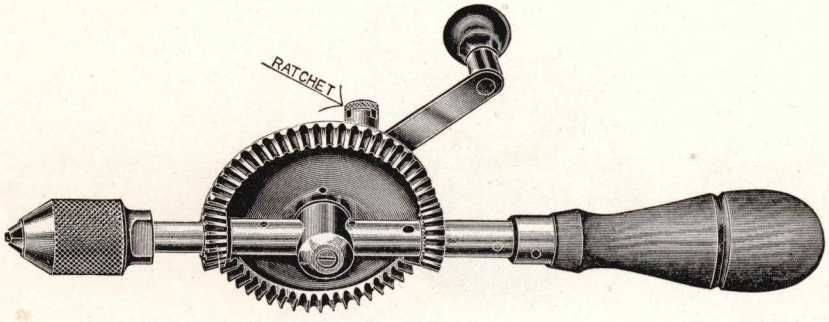
Length 12½ inches. Weight each, 1¾ lbs. Price each (with points), $3.45

Code—Dare

Packed one in a pasteboard box.

Hand Drills

No. 315 (Ratchet)



Drilling in cramped quarters even where there is but an inch or so space to move the crank handle, is easy with this tool. Particularly serviceable for light automobile repair work.

Specifications

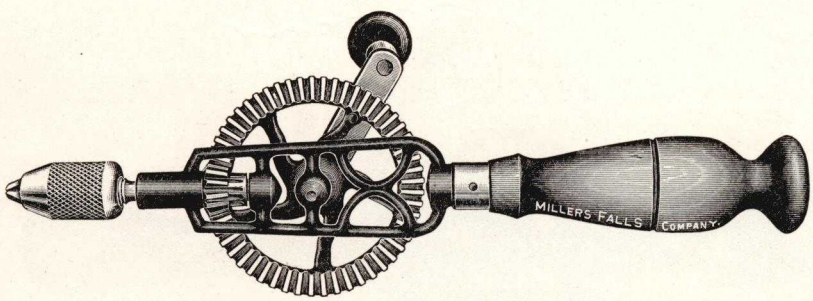
Chuck—three jaw. Protected springs. Capacity 0–¼ in. round shanks.
Ratchet—operated by boss on crank handle. Cut gears. Pinion of steel.
Single speed. Hardened thrust collar. Steel idler gear to equalize bearings.
Hollow end main handle—stained hardwood. Frame—steel, polished and nickeled.
Large gear enameled red. Other exposed metal parts nickeled.

Length 11½ inches. Weight each, 1 lb. 3 oz. Price each (without points), $3.75

Code—Dagola

Packed one in a pasteboard box.

No. 104



This tool differs from our other small drills principally in the main handle—which is similar in shape to those used on No. 1980 and No. 980. It affords a firm, comfortable grip.

Specifications

Chuck—improved design, three jaw, protected springs. 0–3/16 capacity.
Single speed. Cut gears. Steel pinion. Equalizing bearing to offset thrust of large gear.
Malleable iron frame enameled black. Large gear enameled red. All other metal parts nickeled.

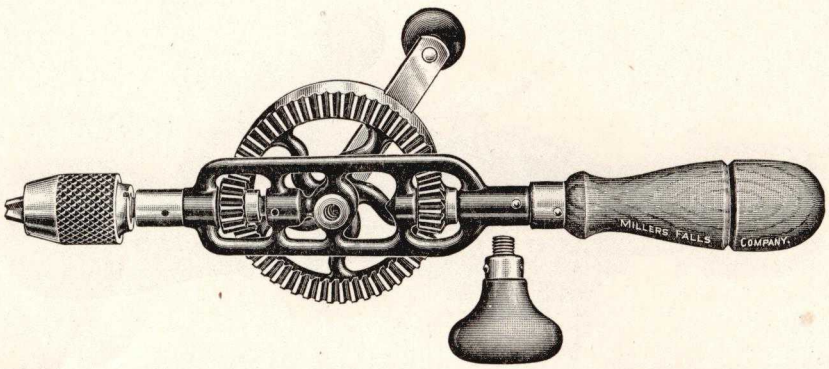
Length 11½ inches. Weight each, 1¼ lbs. Price each (including points), $2.85

Code—Darn

Packed one in a pasteboard box.

Hand Drills

No. 5



The two chief features of this drill are the wide rim on the large gear which can be firmly held between the thumb and finger tips in doing delicate work, and the double pinions which make it exceptionally smooth in action. It is our most popular small hand drill.

Specifications

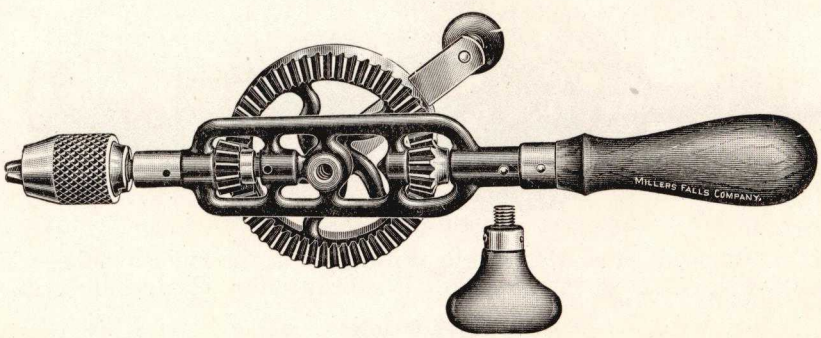
Chuck—three jaw, springless. Capacity 0–3/16 in. round shank drills.
Single speed. Ball thrust bearing. Cut gears. Steel pinions.
Double pinion, including idler pinion to equalize the bearings. Side handle detachable.
Hollow end main handle of cocobolo, containing eight wood boring points.
Large gear, enameled red; malleable iron frame, enameled black. Other metal parts nickeled.

Length 12½ inches. Weight each, 1¾ lbs. Price each (with points), $3.60

Code—Dangle

Packed one in a pasteboard box.

No. 05



Identical with No. 5 except that the main handle is solid, of stained hardwood, and no drill points are furnished.

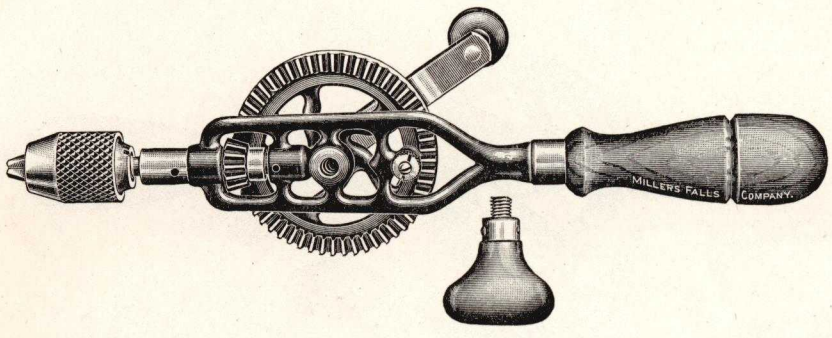
Length 12½ inches. Weight each, 1½ lbs. Price each, $3.25

Code—Dank

Packed one in a pasteboard box.

Hand Drills

No. 1



Except for the chuck which is of the springless type, with capacity of 3/16 instead of ¼ inch this drill is the same as No. 105. It is an easy running, exceptionally serviceable drill.

Specifications

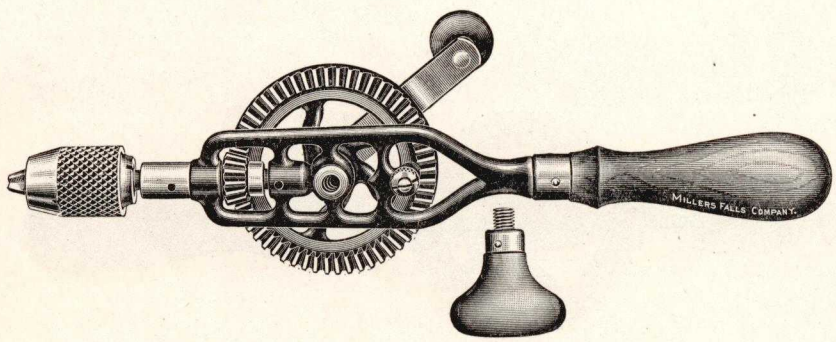
Identical with No. 105 except chuck.

Length 12½ inches. Weight each, 1¾ lbs. Price each (including points), $3.30

Code—Daphne

Packed one in a pasteboard box.

No. 01



The same drill as No. 1, except has solid end main handle of stained hardwood, and no drill points are furnished.

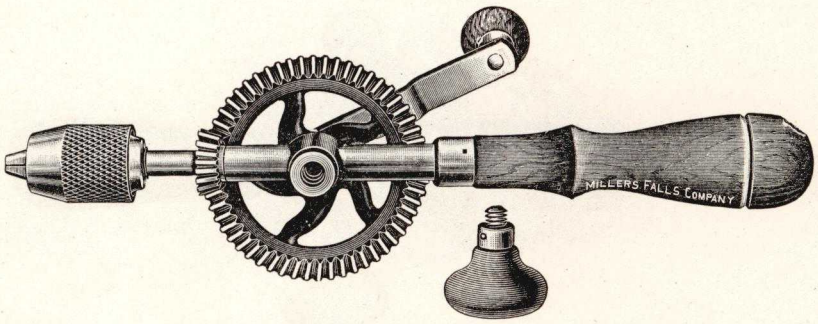
Length 12½ inches. Weight each, 1¼ lbs. Price each, $2.95

Code—Dapper

Packed one in a pasteboard box.

Hand Drills

No. 303



A light, sturdy drill with solid steel frame. An excellent tool moderately priced.

Specifications

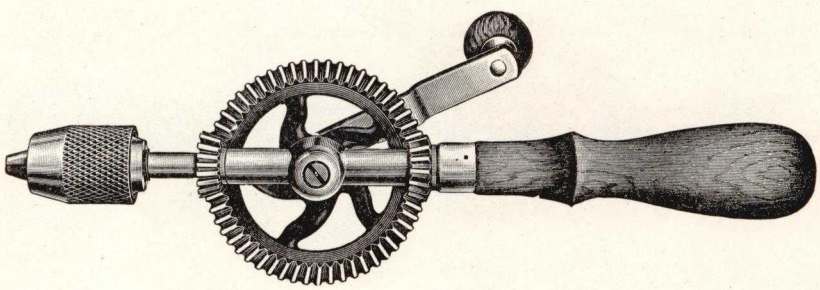
Chuck—three jaw, springless, capacity 0–3/16 in. round shanks. Single speed.
Cut gears. Steel pinion. Hollow end main handle.
Side handle detachable. Both of stained hardwood.
All metal parts nickeled. Large gear enameled red.

Length 11¼ inches. Weight each, 1½ lbs. Price each (without points), $2.80

Code—Dance

Packed one in a pasteboard box.

No. 313



Built the same as No. 303 except that it has double pinions, solid end main handle, and is without the side handle.

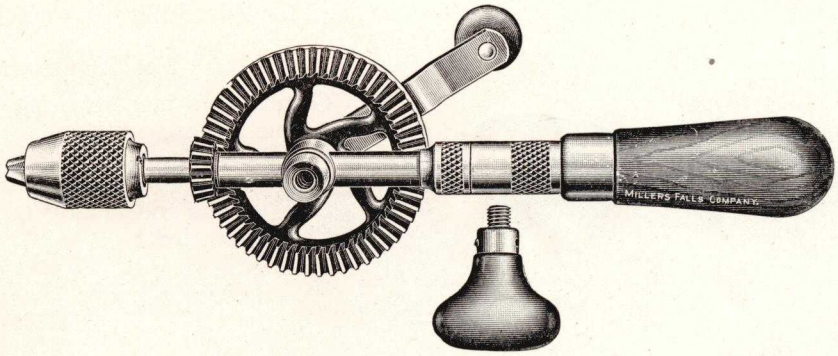
Length 11¼ inches. Weight each, 1½ lbs. Price each (without points), $2.80

Code—Damask

Packed one in a pasteboard box.

Hand Drills

No. 3



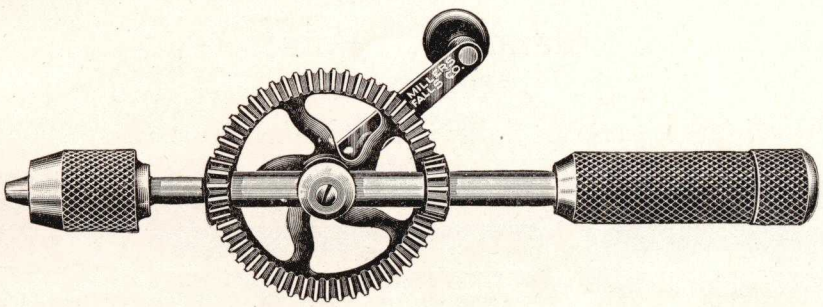
This drill differs from No. 303 only in the construction of the main handle. This is detachable and permits packing the complete drill in a very small space. Drills up to the capacity of the chuck may be carried in the handle.

Length 11 inches Weight each, 1½ lbs. Price each (without points), $3.35

Code—Dandelion

Packed one in a pasteboard box.

No. 343



A comparatively new style of drill. Neat, compact in construction and combines beauty of appearance with serviceability. It is all metal and practically unbreakable.

Specifications

Chuck—three jaw, springless, capacity 0–3/16 in. round shank drills.
Single speed. Cut gears. Pinions of steel. Solid steel frame—nickeled.
Main handle—hollow steel, enameled bright black.
Large gear—enameled red. All other metal parts nickeled.

Length 11 inches. Weight each, 1½ lbs. Price each (without points), $3.50

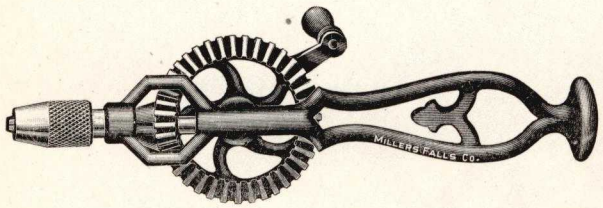
Code—Dam

Packed one in a pasteboard box.

Hand Drills

No. 4D

A small hand drill designed primarily for jewelers' use, and for light drilling in wood or soft metal.



Specifications

Chuck—two jaw, capacity 1/64–⅛ inch round shank drills.
Cast iron frame and large gear.
Frame and large gear enameled black.
Steel spindle and small gear.
Chuck nickeled.

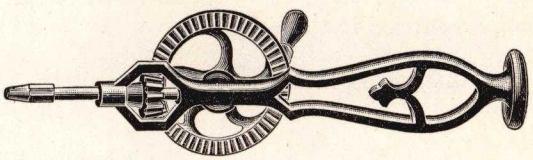
Length 8 inches — Weight each, ¾ lbs. — Price each (without points), $1.35

Code—Daub

Packed one in a pasteboard box.

No. 4

Identical with No. 4D except for the chuck, which is specially constructed for six diamond drill points which are supplied with the drill. These points will drill either wood or soft metal.



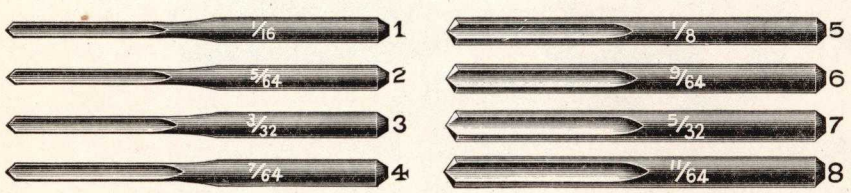
Length 8 inches — Weight each, ¾ lbs. — Price each (including drills), $1.00

Drills per set, $0.25 — *Code—Dative* — Packed one in a pasteboard box.

Hand Drill Points

For Wood

These points are for use in wood and soft metal only.



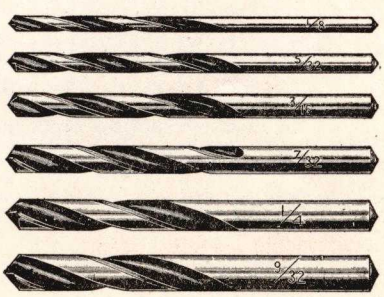
Price per set of 8, $.35
Code—Dart

Price per dozen, $.50
Code—Dastard

Packed per set, or per dozen, in a round wooden box.

For Metal

These drills are the same as are supplied with Nos. 980D and 2D Hand Drills. The only difference between these and regular twist drills is the length 2¾″ overall. Will cut any material that can be drilled.



Sizes, ⅛″, 5/32″, 3/16″, 7/32″, ¼″, 9/32″

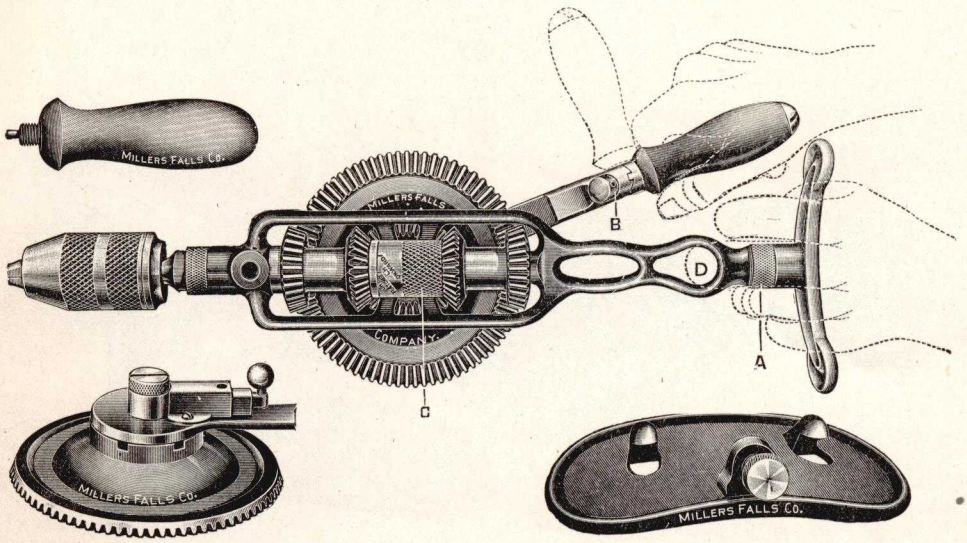
Code—Daxter

Price per set of 6, $1.60

Packed one set in a round wooden box.

Breast Drill (Ratchet)

No. 97



Unquestionably the most complete breast drill on the market, not only in its capabilities, but in its construction as well.

It will reach places inaccessible with the ordinary breast drill. Saves the time usually spent in tearing down to make repairs. Turning the knurled sleeve (Fig. C.) operates the ratchet; pressing the knob on crank handle changes the speed instantly without removing drill from the work. No simpler operations can be conceived.

With all its ingenuity, is a fool proof, strong tool that will give a lifetime of the hardest service.

Special Features

Five actions:

1. Neutral position, which gives the drill the ordinary direct drive without ratchet action in both fast and slow speeds.
2. Ordinary right-hand ratchet action in which the chuck stops turning on backward stroke of the crank.
3. Ordinary left-hand ratchet action.
4. Continuous right-hand ratchet action in which the chuck turns continuously to the right on both forward and backward strokes of the crank.
5. Continuous left-hand ratchet action.

Fast and slow speeds separated by bushings, friction greatly reduced.
Crank handle adjustable for use as ordinary crank or as straight lever for ratchet action.
Breast plate has hand-hold for steadying tool.
Take up nut to overcome any wear in ball bearings.
Double gear drive.

Specifications

Chuck—3 jaw. Protected springs. Capacity 0–½ in. round shanks.
Speeds—two. Gear ratios even and 2¾ to 1.
Cut gears. Steel pinions.
Ball thrust bearing.
Large auxiliary breastplate.
Handles—hardwood stained.
Frame—malleable iron enameled black.
Large gear enameled red.
Other metal parts nickeled.

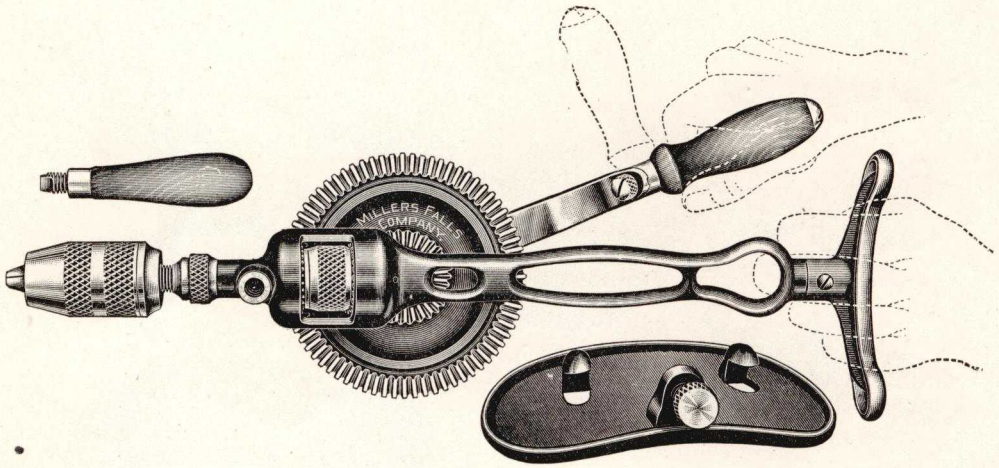
Length 17½ inches. Weight each, 8¼ lbs. Price each, $12.10

Code—Daughter

Packed one in a pasteboard box and one dozen in a case.

Breast Drill (Ratchet)

No. 200



For all ordinary drilling this tool with plain left and right-hand ratchet answers every purpose. It is simple in design, yet thoroughly practical.

Special Features

Slightly rotating the knurled ring changes the speed instantly at any point, and without removing drill from the work. A turn of the boss on crank handle operates the ratchet.

Crank handle usable in regular way or can be turned to straight lever for greater power.

Auxiliary breastplate for comfort and power in doing heavy work.

Specifications

Chuck—three jaw. Protected springs. Capacity 0–½ inch round shanks.

Speeds—two. Gear ratios even and 3 to 1.

Cut gears. Steel pinions.

Ball thrust bearing.

Handles—stained hardwood.

Frame—malleable iron enameled black.

Large gear enameled red.

Other metal parts nickeled.

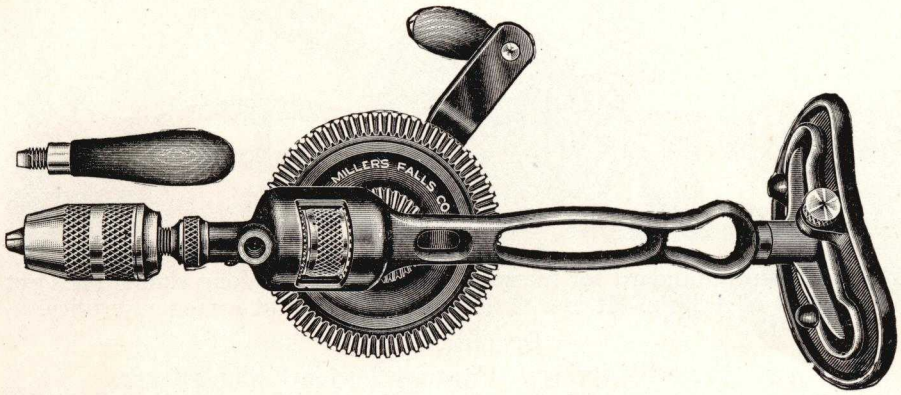
Length 18 inches. Weight each, 7 lbs. Price each, $9.00

Code—Dawdle

Packed one in a pasteboard box and one dozen in a case.

Breast Drills

No. 100



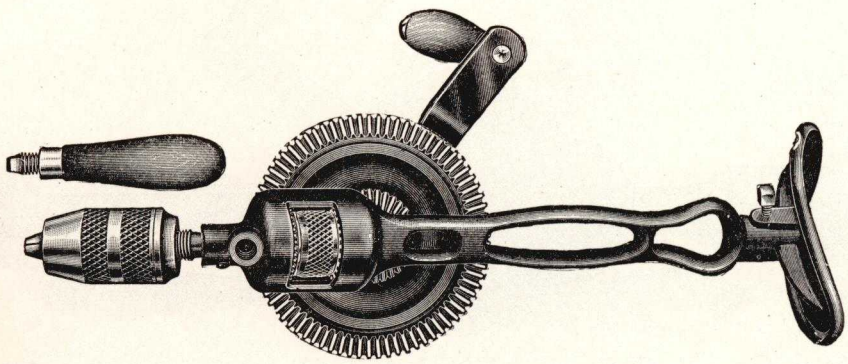
This drill differs from No. 200 in two respects only. It is without ratchet, and the crank is stationary, usable only in the ordinary way.

Length 18 inches. Weight each, 7 lbs. Price each, $6.45

Code—Dazzle

Packed one in a pasteboard box and one dozen in a case.

No. 2100



Same general construction as No 100. The only essential difference is that it is without the ball thrust bearing and auxiliary breastplate.

Specifications

Identical with No. 100 except that the metal parts are polished instead of nickeled.

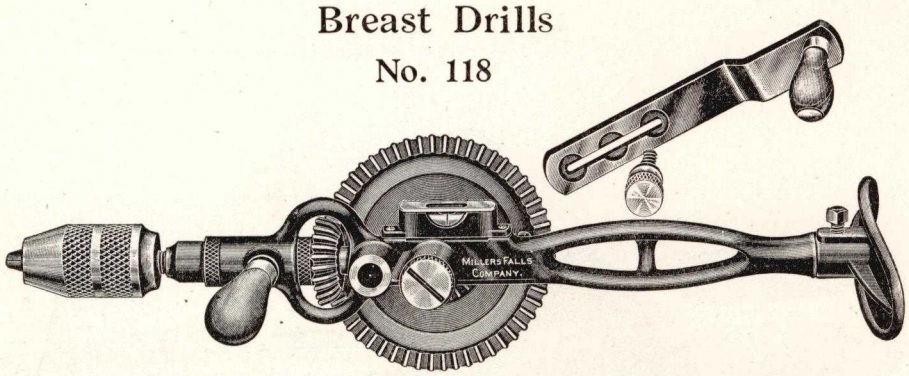
Length 17½ inches. Weight each, 5¾ lbs. Price each, $5.10

Code—Dear

Packed one in a pasteboard box and one dozen in a case.

Breast Drills

No. 118



This drill has been a standard for many years. It is built along simple lines yet has every feature essential to good drilling. It is a "full of service" drill at a moderate price.

Specifications

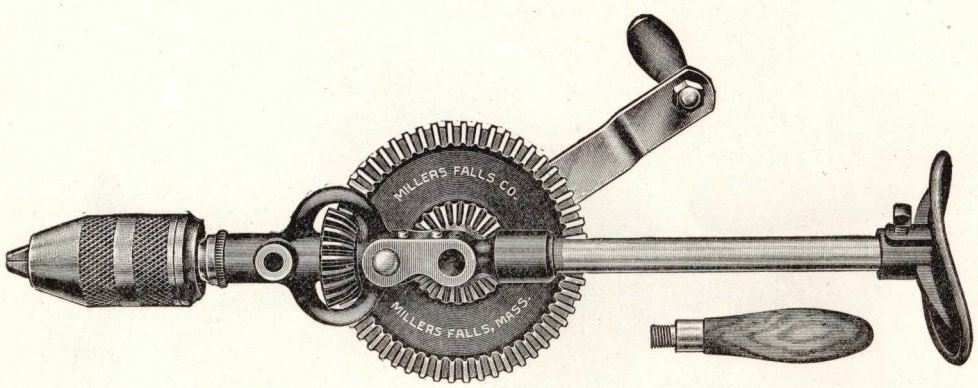
Chuck—three jaw. Protected springs. Capacity 0–½ inch round shanks.
Speed—two. Gear ratios even and 3 to 1. Changed by removing set screw and shifting large gear.
Annular ball bearing spindle, as well as ball thrust bearing, with take up nut to provide for wear.
Handles—stained hardwood. Crank handle extensible. 4 to 6 inch radius.
Cut gears. Pinion of steel. Idler roll to equalize bearing. Adjustable breastplate.
Frame and breastplate malleable iron enameled black. Level attached.
Large gear enameled red. Other metal parts nickeled.

Length 17½ inches. Weight each, 6½ lbs. Price each, $6.10

Code—Decade

Packed one in a pasteboard box and one dozen in a case.

No. 29



A medium priced drill. Built with all its value in its construction rather than high finish. Is of the simplest possible design yet with every essential feature.

Specifications

Chuck—three jaw. Protected springs. Capacity 0–½ inch round shanks.
Speed—two. Gear ratio even and 3 to 1. Changed by pressing spring and shifting large gear.
Ball thrust bearing. Cut gears. Pinion of steel. Handles—stained hardwood.
Adjustable breastplate. Crank handle extensible. Radius 4 to 7 inches.
Frame—rolled steel and cast iron. Large gear enameled red.
Iron frame and breastplate enameled black. Other metal parts polished.

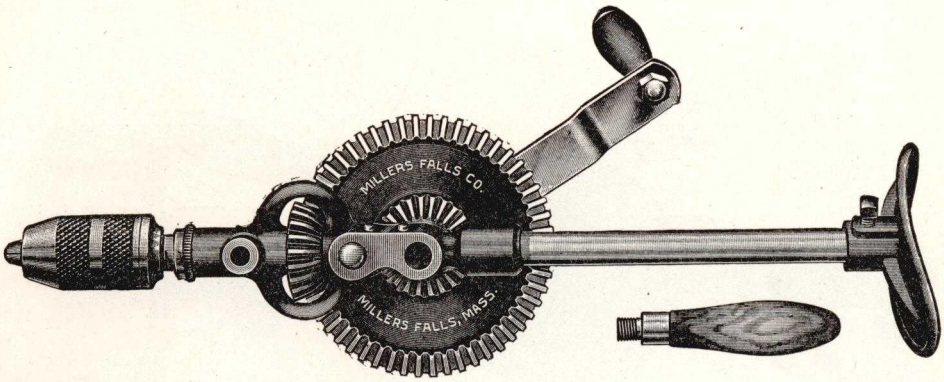
Length 18 inches. Weight each, 6¼ lbs. Price each, $5.10

Code—Decemvir

Packed one in a pasteboard box and one dozen in a case.

Breast Drills

No. 293



This drill is identical with No 29 except that the chuck capacity is 0–⅜ inch instead of 0–½ inch. This range is ample for many types of drilling, particularly light automobile repair work.

Specifications

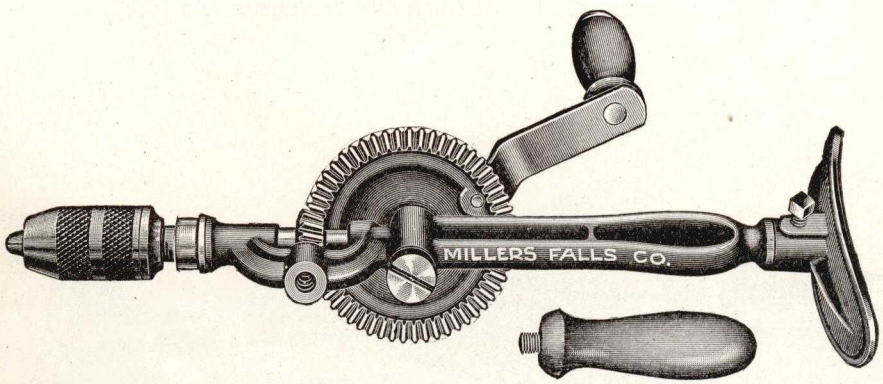
Same as No. 29 except chuck capacity, 0–⅜ inch.

Length 17 inches. Weight each, 6¼ lbs. Price each, $4.70

Code—Decox

Packed one in a pasteboard box and one dozen in a case.

No. 212



This tool is made especially for those who have only an occasional use for a breast drill. It is inexpensive, yet well built and will give satisfaction and good service on light work.

Specifications

Chuck—three jaw, protected springs. Capacity 0–⅜ inch round shank drills.
One speed. Gear ratio 3½ to 1. Frame—malleable iron enameled black.
Hardened steel washer as thrust bearing. Large gear—enameled red.
Cut gears. Small gear of steel. Chuck—polished.
Adjustable breastplate.

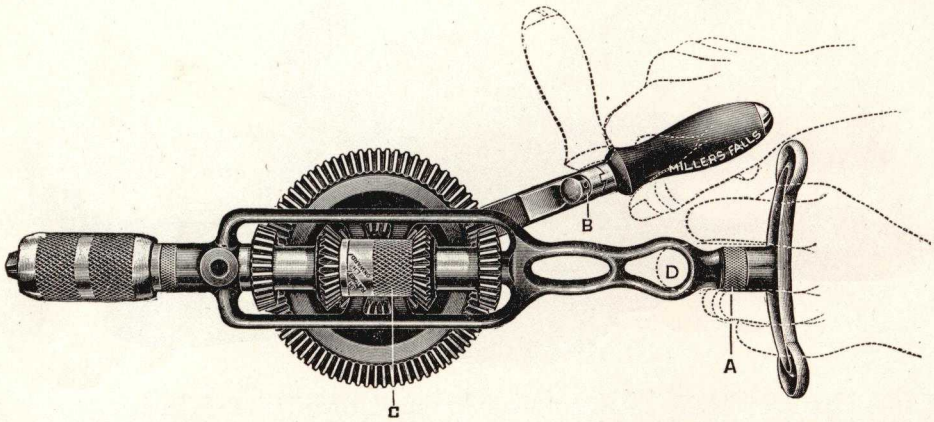
Length 14½ inches. Weight each, 3¾ lbs. Price each, $3.85

Code—Declaim

Packed one in a pasteboard box.

Breast Drills (Ratchet)

No. 87



The same drill as No. 97 (page 59) in every particular, except has Master two jaw chuck. The advantage of this type of chuck lies in the patent milled forged steel jaws that hold bit stock, round, from ⅛ to ½ inch, and No. 1 Morse Taper shanks.

Specifications

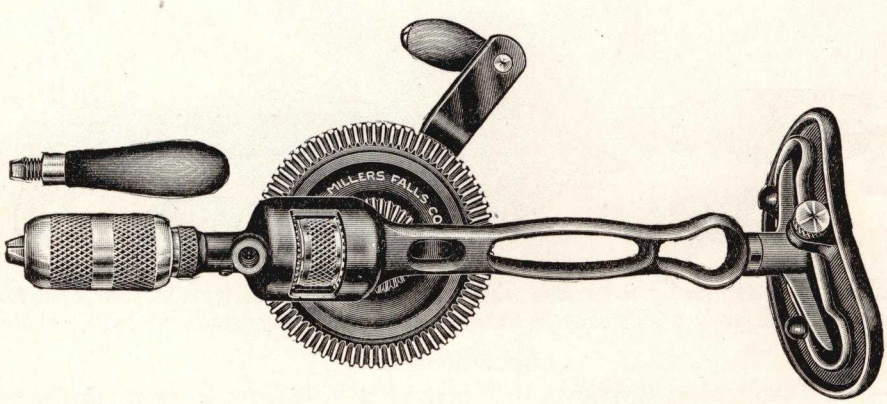
Identical with No. 97 except chuck.

Length 17 inches. Weight each, 8 lbs. Price each, $11.30

Code—Daunt

Packed one in a pasteboard box and one dozen in a case.

No. 99



This drill is the same as No. 100 (page 61) except that it has Master chuck. It is one of our newer drills, characterized by its simplicity of design.

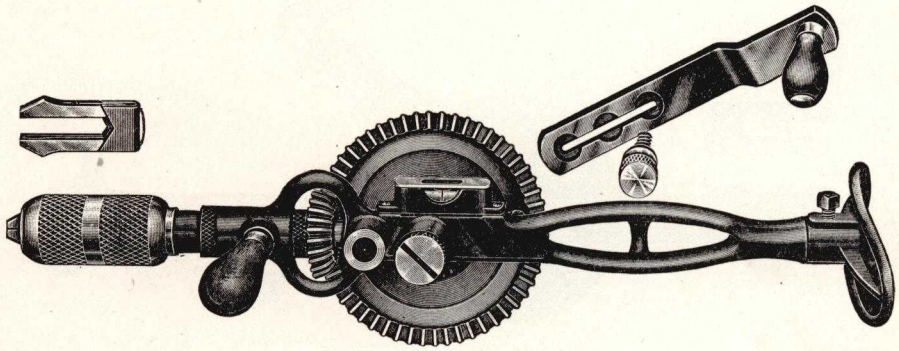
Length 18 inches. Weight each, 7 lbs. Price each, $5.95

Code—Deacon

Packed one in a pasteboard box and one dozen in a case.

Breast Drills

No. 12



It is safe to say that this is the best known and most popular breast drill on the market. It is one of our original drills, and was for years quickly recognized by its large green gear. This has now been changed to red to conform with our other drills. Every feature essential to a serviceable breast drill is built into it, and it is an exceptional value for the price.

Specifications

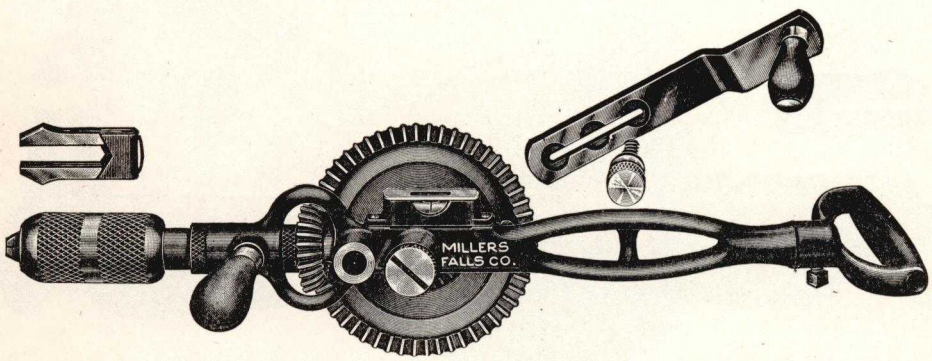
Identical with No. 118 (page 62) except has Master chuck as on Nos. 87 and 99.

Length 17½ inches. Weight each, 6½ lbs. Price each, $5.35

Code—Debut

Packed one in a box and one dozen in a case.

No. 15



This drill is built especially for railroad car repair work. The D shaped handle affords the secure hand hold necessary in this type of work. Identical with No. 12 except has D shaped handle in place of breastplate.

Specifications

The same as No. 118 (page 62) except for chuck.

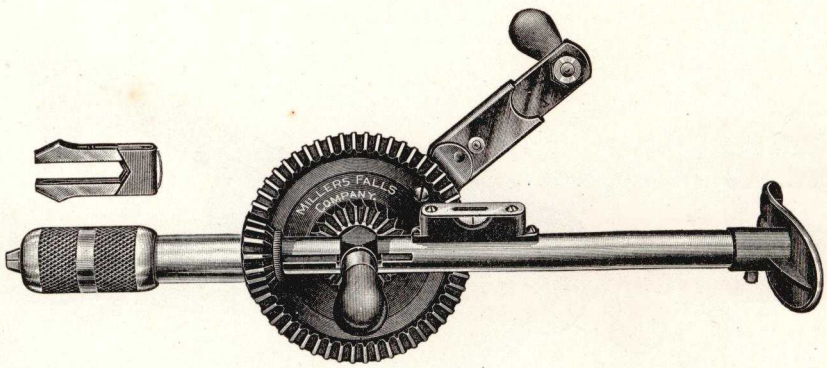
Length 19 inches. Weight each, 6½ lbs. Price each, $5.35

Code—Decamp

Packed one in a box and one dozen in a case.

Breast Drills

No. 10



This drill is preferred by many mechanics because of its solid steel frame. It is a well balanced tool, built along simple lines and is handsome in appearance.

Specifications

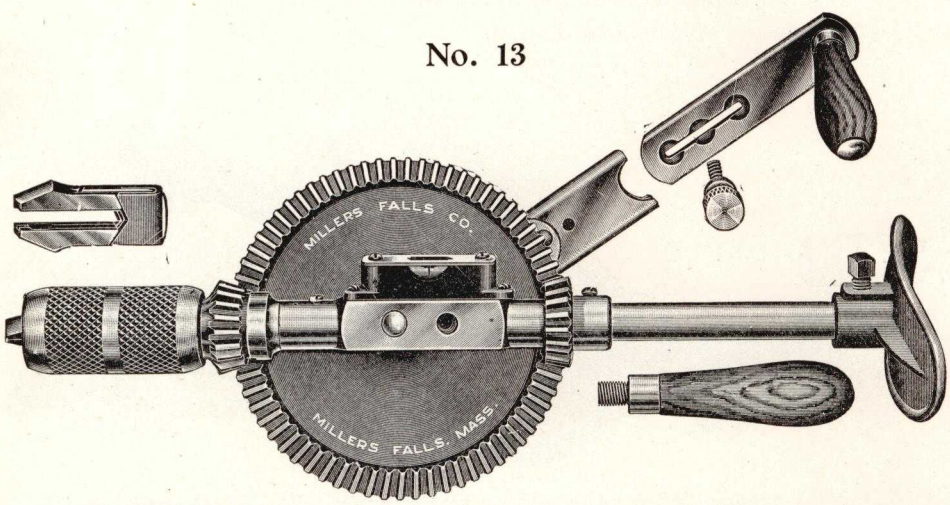
Chuck—Master two jaw, as on No. 12.
Speed—two. Gear ratios even and 3 to 1.
Cut gears. Steel pinion.
Ball thrust bearing.
Crank handle extensible 5½ to 7 inches.
Adjustable breastplate. Level attachment.
Handles—stained hardwood.
Frame—solid steel polished and nickeled.

Length 17 inches. Weight each, 6½ lbs. Price each, $6.45

Code—Debate

Packed one in a box and one dozen in a case.

No. 13



The feature of this drill is the extra large main gear, with diameter of 6 inches, which gives a speed of 4½ to 1. It is especially desirable where rapid drilling is essential.

Specifications

Single speed. Idler gear to equalize bearings. In other respects identical with No. 10.

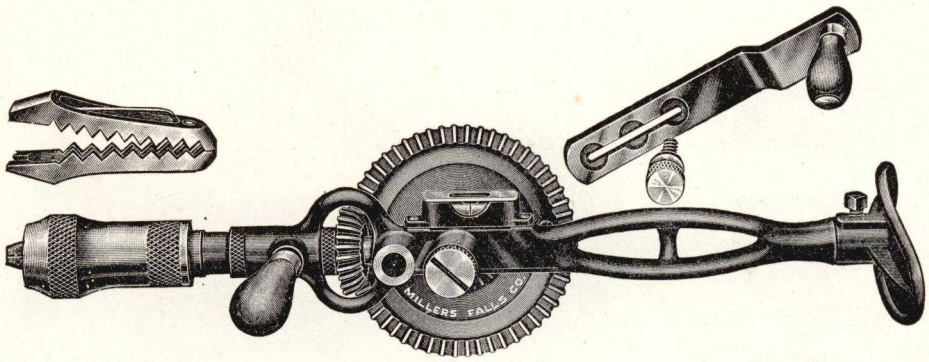
Length 15 inches. Weight each, 5¾ lbs. Price each, $6.75

Code—Debar

Packed one in a pasteboard box and one dozen in a case.

Breast Drills

No. 12A



There are many mechanics whose work principally requires the use of bit stock shank drills. To meet this demand we build several breast drills with our Barber two jaw chuck. No. 12A is identical with No. 12 (page 65) except for this detail.

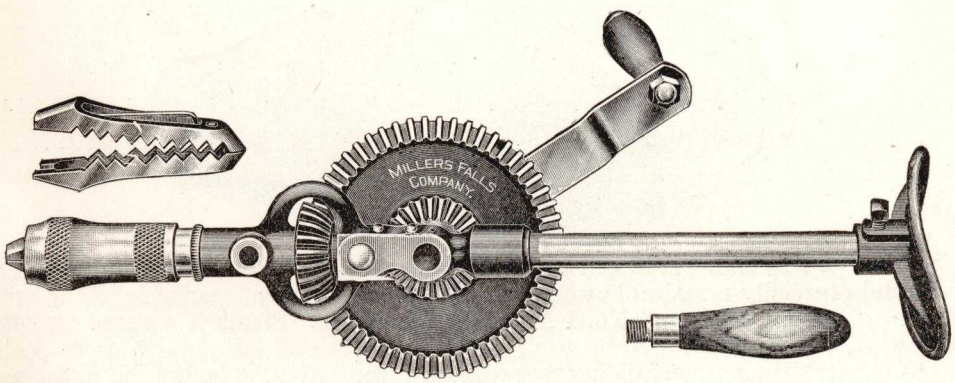
Specifications

Length 17½ inches. Weight each, 6¼ lbs. Price each, $5.25

Code—Decagon

Packed one in a box and one dozen in a case.

No. 19



Every feature essential to efficient drilling is built into this tool. Because of its simple design it is less expensive than some of our other drills.

Chuck—Barber, two jaw for bit shanks only.
In other respects identical with No. 29, page 62.

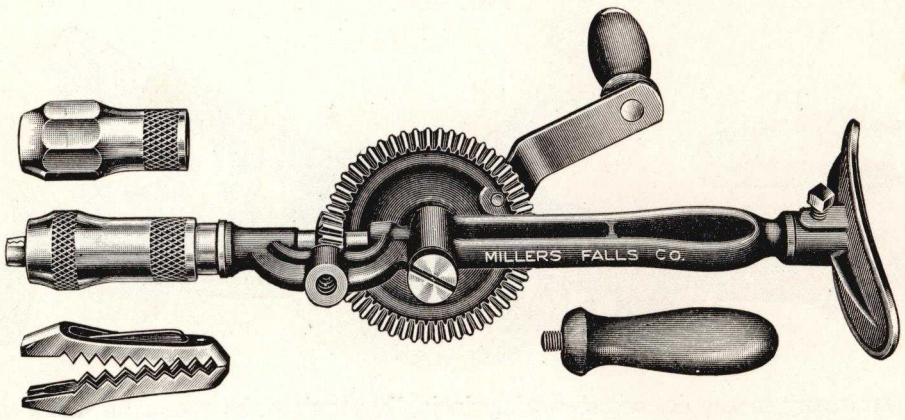
Specifications

Length 18 inches. Weight each, 6⅛ lbs. Price each, $4.20

Code—Decant

Packed one in a box and one dozen in a case.

Breast Drill
No. 112



An ideal drill for use about the home or for light work. It is built primarily for those who have but occasional use for a breast drill.

Specifications

Identical with No. 212 (page 63), except has Barber chuck for bit shanks only.

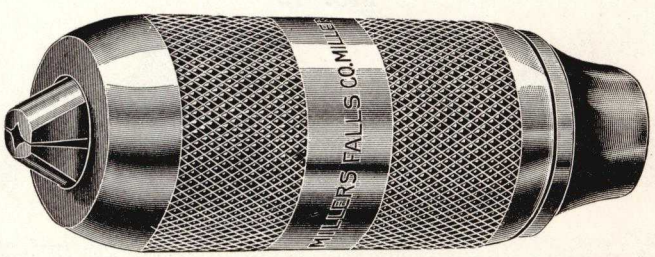
Length 15 inches. Weight each, 4 lbs. Price each, $3.30

Code—Deck

Furnished with octagon shells, each, extra, $0.05. Equipped with level, each, extra, $0.20.

Extra jaws, plain with fine print for small sizes of round shanks, per pair, $0.25.

Breast Drill Chuck
No. 153



The purpose of this chuck is to convert a three jaw breast or bench drill into a two jaw type. It will be found especially practicable where the drilling requirements range from the use of small round shanks to the use of bit and No. 1 Morse Taper shanks. Shank is squared for convenience in tightening.

No. 153 is our Master type, holding round shanks from ⅛ to ½ inches, bit and No. 1 Morse Taper shanks. It fits the spindle of any Millers Falls' breast or bench drill equipped with three jaw chucks, capacity 0 to ½ inch.

Weight each, 13 oz. *Code—Dilate* Price each, $1.70

Packed one in a box.

D Handle

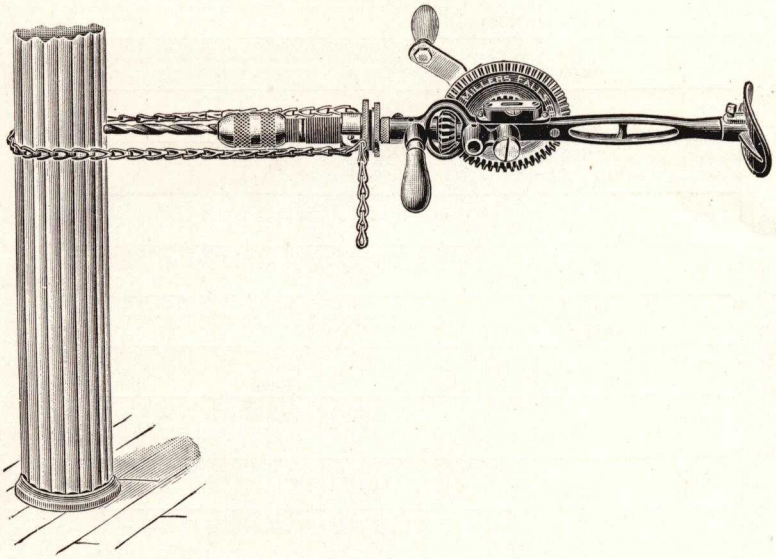


This type of handle affords a powerful handhold, and is particularly useful in railroad car repair work. Fits all our breast drills and is interchangeable with breastplate. Furnished in place of breastplate if desired, without extra charge.

Price each, $0.35. *Code—Decipher*

Bench Drill

No. 25



This tool is a combination breast and chain drill. Its purpose is to facilitate the drilling of rails, girders, pipe or any material wherever it is possible to put a chain around the work.

It is superior to the separate drills in construction, because it is much more compact; and in operation, because the work is brought nearer to the operator.

Specifications

The breast drill is our No. 12 (page 65), with Master chuck, holding bit stock, round from $\frac{1}{8}$ to $\frac{1}{2}$ inch and No. 1 Morse Taper shanks.

The chain drill is our No. 718 pattern having both automatic friction feed and hand feed. Requires no pressure whatever on the breastplate. Ball thrust bearings at two points in the main drill, and also in the chain drill extension, make it exceptionally free running. Three feet of stout chain is furnished for the chain drill.

Length 20 inches. Weight each, 8 lbs. Price each, $8.50

Code—Decretal

PRICES OF PARTS OF HAND DRILLS AND BREAST DRILLS

HAND DRILLS									BREAST DRILLS																					
—	1	2	3	4	5	6	7	8	—	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
No.	Main Handle, each	Stationary Side Handle, each	Crank and Handle, per set	Chuck complete, each	Jaws, per set	Large Gear, each	Small Gear, each	Main Frame, each	No.	Chuck complete, each	Chuck Jaws	Chuck Shell, each	Chuck Socket, each	Frame, each	Large Gear, each	Small Gear, each	Crank only, each	Crank Handle, Wood only, each.	Bolt and Nut for C'nk H'dl, per set	Stationary Side Handle, each	Breastplate, each	Auxiliary Breast-plate, each	D or Spade Handle, each	Gear Screw, each	Crank Screw, each	Long Ball Cup, each	Short Ball Cup, each	Spindle, each	Frame Stem, each	Joint Screw, each	Level, each
1	.65	.25	.25	1.50	.60	.50	.10	.70	10	h2.60	c.80	.70	1.40	1.10	1.00	.50	k.90	.25	.20	.35	.40	....	....	.15	.15	.10	....	....	....	....	.35
01	.25	.25	.25	1.50	.60	.50	.10	.70	12	1.70	c.80	.70	.40	1.40	j1.00	.40	.20	.20	.15	.20	.35	....	....	.15	.15	.15	.15	....	....	....	.35
2	1.00	.25	.50	2.00	.70	.75	.10	.90	12a	1.65	c.60	.65	.55	1.40	j1.00	.40	.20	.20	.15	.20	.35	....	....	.15	.15	.15	.15	....	....	....	.35
2b	.35	.25	.50	2.00	.70	.75	.10	.90	13	h2.00	c.80	.70	.40	.90	1.00	.30	k.90	.20	.15	.20	.35	....	....	.15	.15	.20	....	....	....	....	.35
3	.55	.25	.20	1.50	.60	.40	.10	.30	15	1.90	c.80	.70	.60	1.30	j1.10	.40	.15	.25	.20	.35	.35	....	.40	.15	.15	.15	.15	....	....	....	.35
4	....	....	.10	.10	....	.20	.15	.25	19	1.40	c.60	.55	.70	m.90	j1.00	.40	.15	.20	.10	.35	.35	....	....	.15	.15	.10	....	....	.30	....	....
4d	....	....	.10	.65	.20	.20	.15	.25	29	2.25	d.60	.70	.30	m.90	j1.00	.40	.15	.20	.10	.35	.35	....	....	.15	.15	.10	....	.40	.30	....	....
5	.65	.25	.20	1.50	.60	.60	.10	.65	87	2.00	c.80	.70	.50	1.30	1.10	.70	f3.20	.20	.50	.20	.35	.50	....	.15	.10	.15	....	....	....	....	....
05	.25	.25	.20	1.50	.60	.60	.10	.65	97	2.50	d.90	.80	.30	1.30	1.10	.70	f3.20	.20	.50	.20	.35	.50	....	.15	.10	.15	....	1.20	....	.15	....
7	.25	.25	.15	2.00	.70	.55	.15	.75	99	1.90	e.75	.70	.40	1.30	.90	.25	.10	.20	.10	.20	.30	.60	....	.15	.10	.10	....	....	....	....	....
104	.40	....	.20	1.50	.40	.35	.10	.50	100	2.50	d.70	.80	.30	1.30	1.00	.25	.10	.20	.10	.20	.30	.50	....	.15	.10	.10	....	e.50	....	....	....
105	.65	.25	.20	1.50	.40	.50	.10	.70	112	1.50	e.60	.50	.60	.80	j .45	.25	.10	.20	.10	.20	.35	....	....	.15	.10	.10	....	....	....	....	.30
303	.40	.25	.20	1.50	.60	.40	.10	.25	118	2.50	d.70	.80	.30	1.40	j1.10	.40	.10	.20	.15	.20	.35	....	....	.15	.10	.10	.10	e.45	....	....	.35
313	.30	....	.20	1.50	.60	.40	.10	.30	200	2.50	d.70	.80	.30	1.30	i1.05	.25	g1.10	.20	.50	.20	.35	.50	....	.15	.10	.10	....	e.45	....	.15	....
315	.40	.25	a1.15	1.50	.40	.65	.10	.30	212	1.80	d.70	.30	.30	.80	j .45	.25	.10	.20	.10	.20	.35	....	....	.15	.10	.10	....	.15	....	....	.30
343	.50	....	.20	1.50	.60	.60	.10	.30	293	1.90	d.70	.30	.30	.80	j 45	.25	.10	.20	.10	.20	.35	....	....	.15	.10	.10	....	.15	....	....	.30
980	.80	.25	.25	2.00	.70	.80	.15	1.20	2100	2.40	d.60	.80	.30	1.20	1.00	.25	.10	.20	.10	.20	.35	....	....	.15	.10	....	....	e.45	....	....	....
1980	.90	.25	a1.00	2.00	.70	.80	.15	1.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

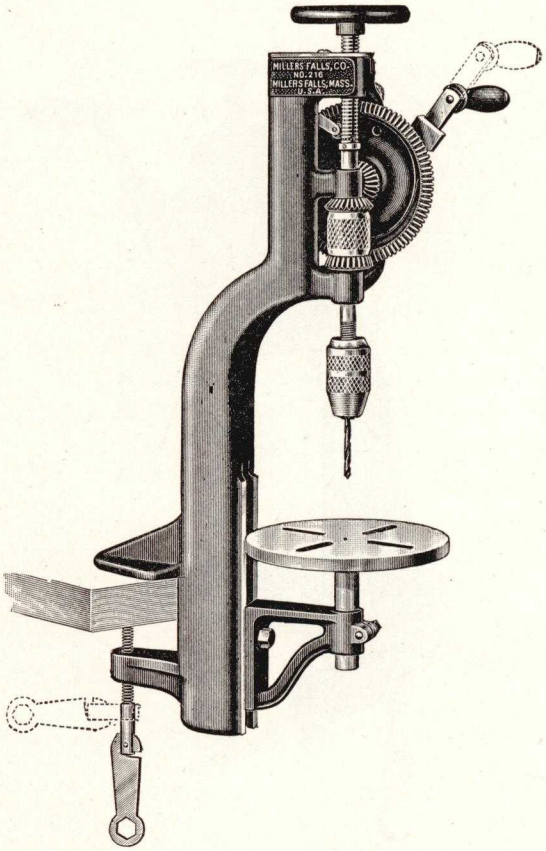
a—includes ratchet mechanism; b—includes two parts; c—per pair; d—per set of three jaws; e—includes cone bearing; f—includes two gear bearings and speed shifter; g—includes crank bearing and ratchet stud; h—includes small gear and pin for same; i—has ratchet plate and two pins; j—includes gear arbor; k—crank complete with all screws; m—cast-iron frame only.

Note—When ordering parts please specify the number of the Drill, the part number, and the name of part wanted. Attention to this detail will avoid any chance of error.

MILLERS FALLS COMPANY
MILLERS FALLS TOOLS

Bench Drill

No. 216



Unquestionably the most complete hand power Bench Drill made.

The distinguishing feature is the feed construction. Two rates of automatic feed positive in action are insurance against drills breaking when about to go through the work, or when used on thin material. Also it gives the operator free use of one hand to hold the work. Drill can be fed by hand if desired, by means of feed wheel conveniently located at top.

Three frame bearings hold the drill spindle and feed screw making it unusually strong and rigid.

Specifications

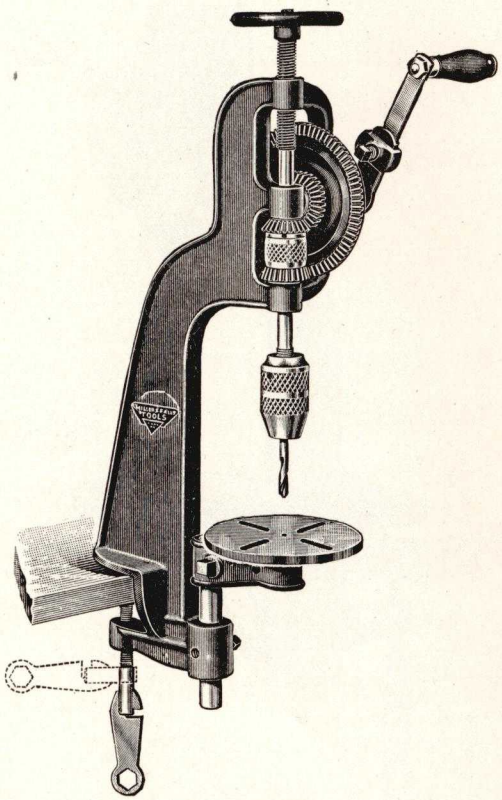
Two speeds, ratios even and 3½ to 1. Instantly changed by turning knurled sleeve.
Cut gears. Pinions of steel. Ball thrust bearings.
Crank handle extensible, 3 to 6½ inch radius.
Chuck—three jaw, protected springs. Capacity 0 to ½ inch round shanks.
Table 7½ inch in diameter slotted to receive vise clamps or posts to hold work in place.
Steel feed screw, spindle and chuck. Cast iron frame, large gear and table.
Chuck and knurled sleeve nickeled. Frame enameled black. Large gear enameled red.
Other machined parts polished. Traverse of automatic feed 2⅛ inches.
Distance from table to chuck 8 inches. Vertical adjustment of table bracket 5¾ inches.
Vertical adjustment of table in its bracket 2½ inches.
Height above bench 22 inches. Height overall 28 inches.

Weight boxed 50 lbs., net 30 lbs. *Code—Defray* Price each, $23.00

Packed one in a wooden box.

Bench Drill

No. 210



A bench drill with hand feed is adequate, unless there is a large amount of drilling to be done. No. 210 is a rigid, strongly built and accurate drill. It is thoroughly efficient and an exceptional value for the price.

Specifications

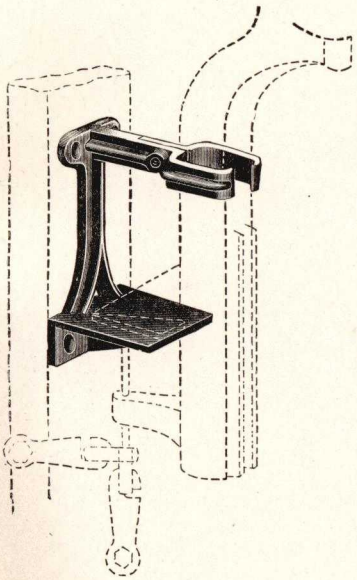
Feed. Hand wheel conveniently located at top.
Two speeds, ratios 1½ to 1 and 4 to 1, instantly changed by turning knurled sleeve.
Cut gears. Pinions of steel. Crank handle extensible, 3 to 6 inch radius.
Chuck—three jaw, protected springs. Capacity 0 to ½ inch round shanks.
Steel feed screw, spindle and chuck.
Cast iron frame, large gear and table. Chuck and knurled sleeve nickeled.
Large gear enameled red. Frame enameled black.
Table and other machined parts polished.
Maximum distance from chuck to table 9 inches.

Height overall 24 inches. Weight boxed 27½ lbs., net 22 lbs. Price each, $14.75

Code—Deism

Packed one in a wooden box.

Bench Drills



216

No. 218

This is the same as No. 216 with the addition of the Wall Clamp No. 216 illustrated at left. This clamp securely grips the main frame and is fastened with screws to a wall or post.

Weight boxed 56 lbs., net 36 lbs. Price each, $24.25

Code—Deft

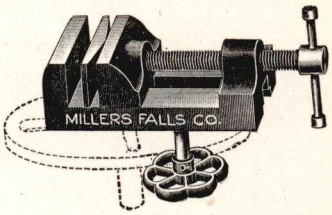
Packed one in a wooden box.

Vise No. 217

For use with drills Nos. 210, 211, 216, and 218. Clamps to table of drill. Detachable swivel jaw holds irregular shapes. Steel screw. Jaws, base, sides and bearing parts accurately machined.

Vise opens 2⅝ inches.
Without swivel jaw opens 3 ins.
Width of jaws 2⅜ inches.
Weight 4¾ lbs.
Price each, $3.15

Code—Deign



217

No. 211

The same as No. 210 with addition of Post or Wall Clamp No. 210.

Weight boxed, 31½ lbs. Price complete, $17.25

Code—Delaine

Packed one in a wooden box.

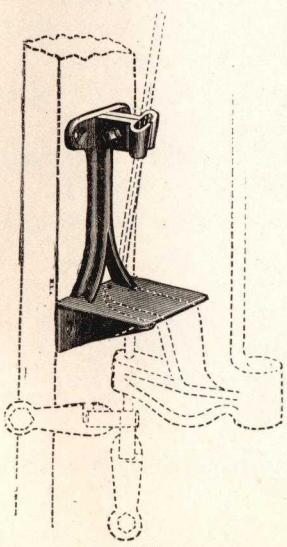
No. 213

The same as No. 210 with addition of Vise No. 219.

Weight boxed, 31½ lbs. Price complete, $18.25

Code—Delf

Packed one in a wooden box.



210

No. 214

The same as No. 210 with both Post or Wall Clamp No. 210 and Vise No. 219.

Weight boxed, 35½ lbs. Price complete, $20.00

Code—Delta

Packed one in a wooden box.

Vise No. 219

For use with Bench Drill No. 210. Similar to No. 217 Vise, but is without swivel jaw and not as highly finished.

Width of jaws, 2¼ inch.
Jaw open 1⅝ inch.
Weight 4 lbs.
Price each, $2.50

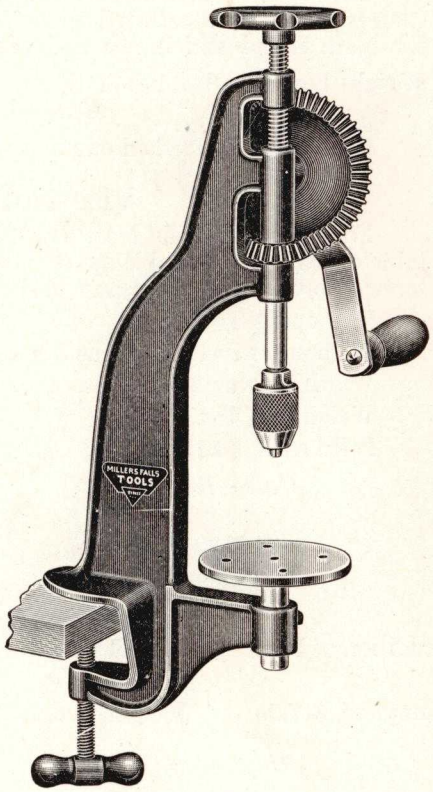
Code—Degna



219

Bench Drill

No. 207



This drill is built along simple lines, and is an ideal tool for light work. It is neat, clean cut and thoroughly well made.

Specifications

Feed—hand wheel at top of frame. One speed, ratio 3 to 1.
Chuck—three jaw, protected springs. Capacity 0–¼ inch round shanks.
Cut gears. Steel pinion.
Frame—cast iron enameled black.
Feed wheel and large gear enameled red.
Chuck, nickeled. Maximum distance from chuck to table 4½ inches.

Height overall, 18 inches. Weight 8½ lbs. net, 13 lbs. gross. Price $7.50

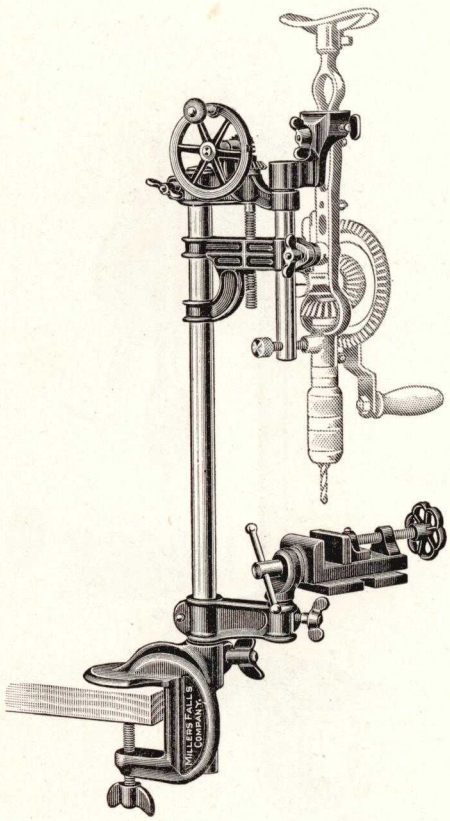
Code—Deluge

Packed one in a wooden box.

Note—Will take Post or Wall Clamp No. 210, illustrated on page 73.

Bench Drill

No. 20



This tool is of particular value when the use of a bench drill is secondary to that of a breast drill. With this standard, breast drills (see note below) can be made to serve a double purpose.

The drill is easy to attach, can be swiveled into many positions and clamped at varying heights either above or below the bench.

The vise is swung on a pin off center, and can be used in any position, or at any angle with the frame, vertical to horizontal, or completely reversed and the table turned uppermost.

It is thoroughly practical and makes an efficient bench drill. Note—Can be used with any Millers Falls breast drill except Nos. 13, 19, 29, 112, 212, or 293.

Specifications

Feed. Governed by hand wheel, conveniently located at top.
Rapid action. Steel feed gears and post.
Post and machined parts polished.
Other metal parts japanned.

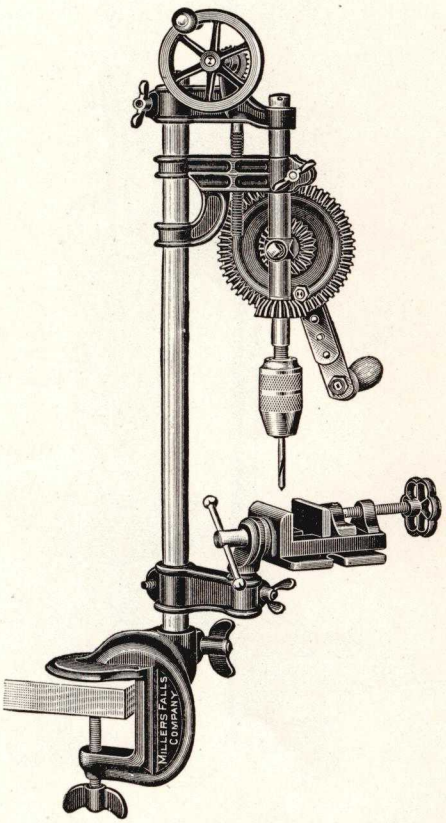
Height of standard 24 in. Weight boxed, 28 lbs., net, 19 lbs. Price without breast drill, $11.00

Code—Demur

Packed one in a wooden box.

Bench Drill

No. 21



This drill is the same as No. 20, except it is built with drilling attachment permanently affixed. It is a complete tool in itself. This construction permits several features not possible in No. 20.

Specifications

Feed same as No. 20. Speeds—two. Ratios even and 3 to 1.
Chuck—three jaw, protected springs. Capacity 0–½ inch round shanks.
Extensible crank handle, radius from 5 to 6½ inch.
Ball thrust bearing. Cut gears. Steel pinion.
Chuck, spindle and crank nickeled.

Other parts finished same as No. 20.

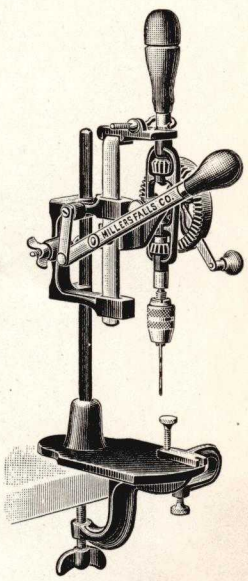
Weight boxed, 30 lbs., net 21 lbs. Price complete, $15.75

Code—Demy

Packed one in a wooden box.

Bench Drills

No. 22



The purpose of this tool is to convert a hand drill into a small bench drill for wood or metal drilling. The hand drill is easily inserted and firmly held by an adjustable clamp. Drill can be fed as rapidly or as slowly as desired by means of sensitive compound lever. It is well made and makes a convenient and effective tool.

Holds the following Millers Falls' hand drills: Nos. 1, 01, 2, 2B, 5, 05, 105, 3 and 303.

Will hold No. 980 and No. 1980 by using special clamp costing 15c. each.

Specifications

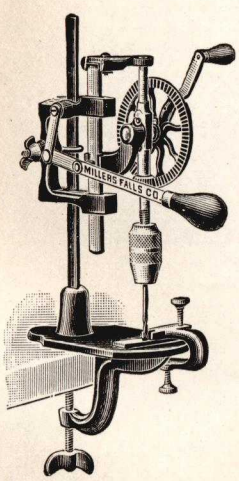
Height of standard above bench 15½ inches.
Grey iron frame, enameled black.
Steel standard.
Steel lever—polished.

Weight 8 lbs. Price without drill, $4.50

Code—Den

Packed one in a pasteboard box.

No. 23



The same drill as No. 22 except has drilling attachment built in, making a complete tool in itself.

Specifications

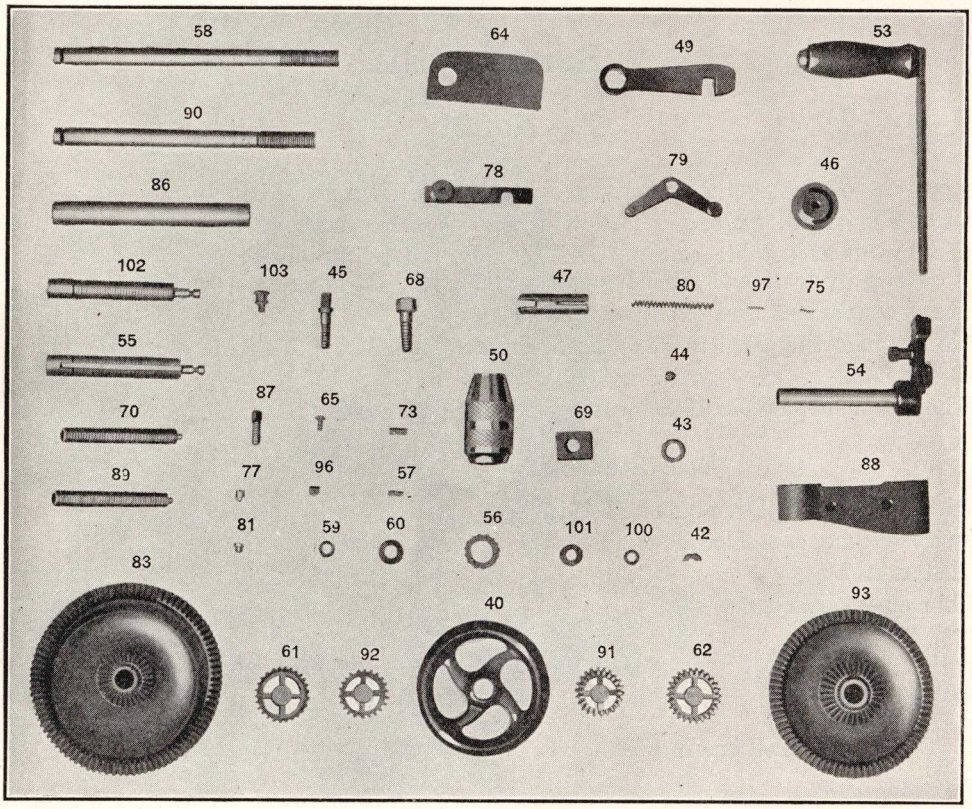
Chuck—three jaw, protected springs. Capacity 0—0⅜ round shank drills.
Chuck, drill spindle and crank nickeled.
All other metal parts japanned.
Standard same as No. 20.

Weight 9 lbs. Price, $7.60

Code—Dendrite

Packed one in a pasteboard box.

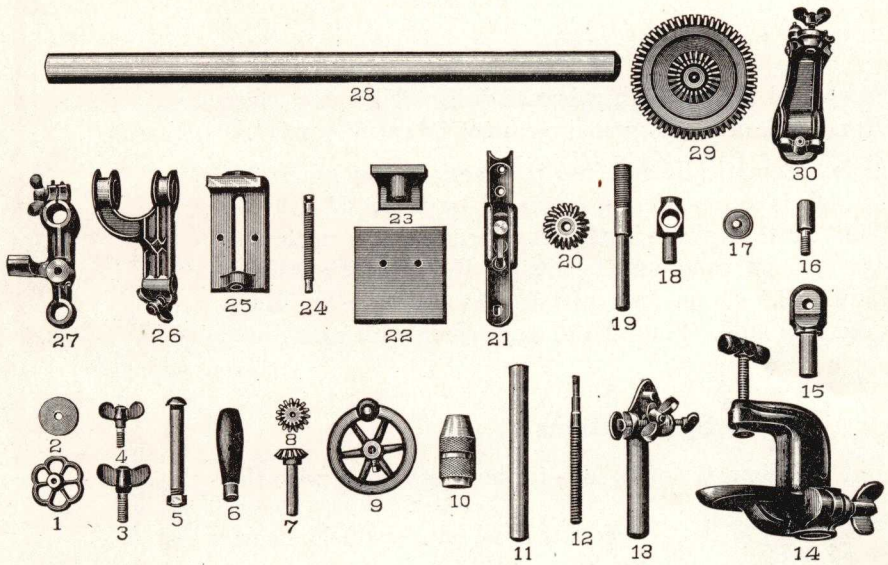
Nos. 210 and 216 Bench Drill Parts and Prices



Part No.	Used on	Name of Part	Price
40	216–210	Feed wheel	$ .60
41	216–210	Feed wheel pin (Br. long dog)	.10
42	216–210	Spline key	.10
43	216–210	Key collar	.15
44	216–210	Key collar screw	.10
45	216–210	Table bracket clamp screw (No. 210 arm)	.10
46	216–210	Bench clamp screw washer	.10
47	216–210	Bench clamp screw handle	.20
48	216–210	Bench clamp screw handle pin	.10
49	216–210	Wrench	.10
50	216–210	Chuck No. 7, nickeled	2.60
51	216–210	Shifter Dog pin (No. 99 Br. Dr.)	.10
52	216–210	Gear pin (No. 12 Pinion)	.10
53	216–210	Flat crank handle, complete	.40
54	216–210	Crank casting, complete (with large gear shaft)	.55
55	216	Feed screw	.60
56	216	Feed gear	.10
57	216	Feed gear spline gib	.10
58	216	Spindle	.55
59	216	Small ball race	.10
60	216	Large ball race	.10
61	216	Slow pinion	.25
62	216	Fast pinion	.30
63	216	Frame	11.05
64	216	Frame cap	.10
65	216	Frame cap screw (No. 102 Spk. Pt.)	.10
66	216	Table	2.30
67	216	Table bracket	1.30
68	216	Table bracket bolt	.10
69	216	Table bracket bolt nut	.10
70	216	Bench clamp screw	.15
71	216	Shifter, complete	$1.60
72	216	Shifter barrel (two speed)	.20
73	216	Shifter dog (two speed)	.30
74	216	Shifter cam	.15
75	216	Shifter dog spring (No. 87 Br. Dr.)	.10
76	216	Shifter sleeve (knurled)	.35
77	216–210	Spline pin	.10
78	216	Feed bar, complete	.35
79	216	Cam lever, complete	.20
80	216	Cam lever spring	.10
81	216	Cam lever spring plug	.10
82	216	Steel ball bearings, 3/32 in., per doz.	.10
83	216	Large gear	1.20
84	210	Frame	7.00
85	210	Table	1.45
86	210	Table post	.65
87	210	Table post set screw (Bor.M.Top Cap)	.10
88	210	Table arm	.85
89	210	Bench clamp screw	.10
90	210	Spindle	.40
91	210	Fast pinion	.20
92	210	Slow pinion	.20
93	210	Large gear	.95
94	210	Shifter, complete	1.30
95	210	Shifter barrel	.10
96	210	Shifter dogs (No. 99 Br. Dr.)	.20
97	210	Shifter dog spring (No. 99 Br. Dr.)	.10
98	210	Shifter cam	.10
99	210	Shifter sleeve (knurled)	.30
100	210	Small bearing washer	.10
101	210	Large bearing washer	.10
102	210	Feed screw	.10
103	216	Cam lever screw	.10

Note—Please order by drill number as well as part number in order to avoid possible chance of error. Those parts not illustrated are easily identified by descriptive list.

Nos. 20 and 21 Bench Drill Parts and Prices



1	Vise wheel	$ .10
2	Fiber washer	.10
3	Bench clamp binder screw	.10
4	Frame thumb screw and vise arm thumb screw	.20
5	Crank handle bolt and nut	.20
6	Crank handle	.35
7	Arbor and gear	.20
8	Spindle gear	.15
9	Feed wheel, complete	.55
10	Chuck	2.60
11	No. 21 attachment frame	1.30
12	Feed screw	.60
13	No. 20 attachment, complete	1.90
14	Bench clamp, complete	1.50
15	Swivel	.80
16	Vise swivel screw	.10
17	No. 21 attachment gear screw	.15
18	No. 21 attachment gear stud	.45
19	No. 21 attachment spindle	.50
20	No. 21 attachment pinion	.50
21	No. 21 attachment crank, complete	1.05
22	Vise table	.50
23	Vise short jaw	.30
24	Vise feed screw	.10
25	Vise long jaw	.80
26	Lower frame, complete	.50
27	Upper frame, complete	.55
28	Standard	.90
29	No. 21 attachment large gear	.90
30	Vise arm, complete	1.30

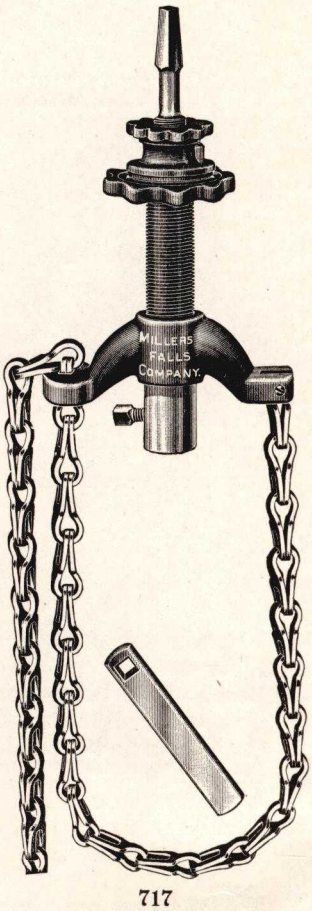
Please order by drill number as well as part number. It will avoid possible chance of error.

Chain Drills

No. 717

An auxiliary tool for use with a breast drill or bit brace, when extra power is needed, or where pressure cannot be easily applied.

The drill is automatically fed into the work by an adjustable friction feed which is automatically regulated by the resistance the drill encounters. Drill breakage is, therefore, reduced to a minimum. Requires but a moment to adjust the chain. Reverse movement of brace withdraws drill. No intricate parts to get out of order. Hand feed can be used if desired. Four feet of stout chain with each drill.



717

Specifications

Socket hole has diameter of ½ inch for holding shanks with this diameter.

Square head set screw holds shanks securely.

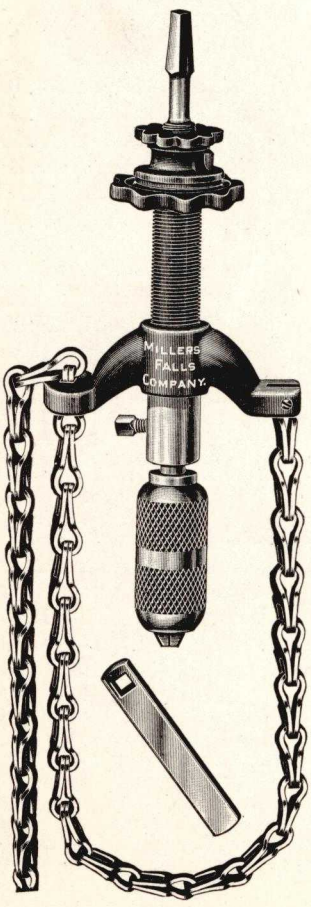
Socket drilled for ⅝ inch shanks, without charge, if requested.

Length of main spindle 8½ inches.

Weight, 3½ lbs. Price, $3.20

Code—Dedicate

Packed one in a pasteboard box.



718

No. 718

Identical with No. 717 except has Master two jaw chuck which holds bit, round from ⅛ to ½ inch and No. 1 Morse Taper shanks.

Length with chuck, 11½ inches. Weight, 4½ lbs. Price, $5.25

Code—Decurion

Packed one in a pasteboard box.

Chain Drills

No. 719

The same construction as No. 717, except is furnished with Millers Falls chuck.

Chuck—three jaw, protected springs. Capacity 0–½ inch round shanks.

Ball thrust bearing.

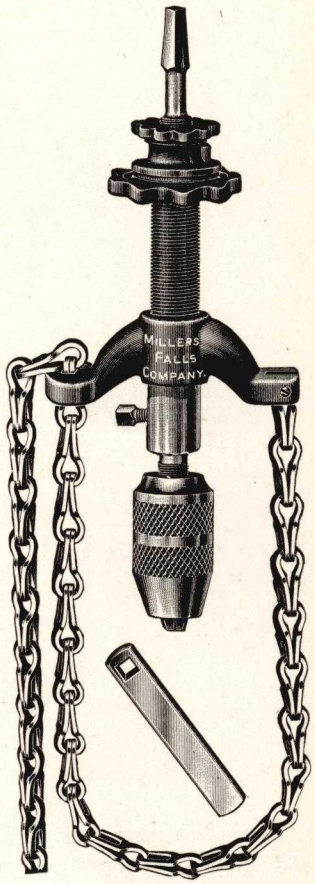
Frame, malleable iron, japanned black.

Chuck polished.

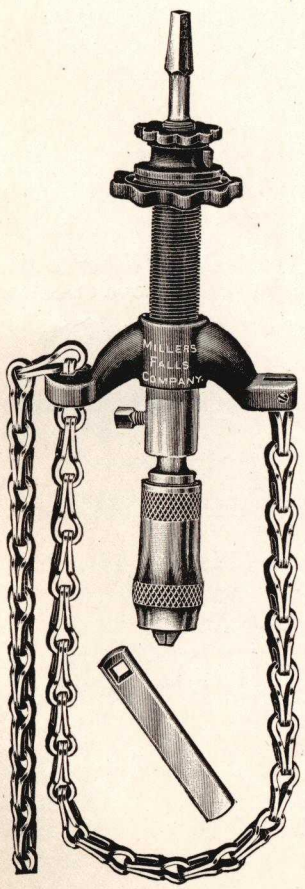
Length with chuck, 11¾ inches. Weight, 4½ lbs. Price, $6.00

Code—Decuple

Packed one in a pasteboard box.



719



720

No. 720

Identical with No. 717, except has Barber chuck with alligator jaws for bit shanks only.

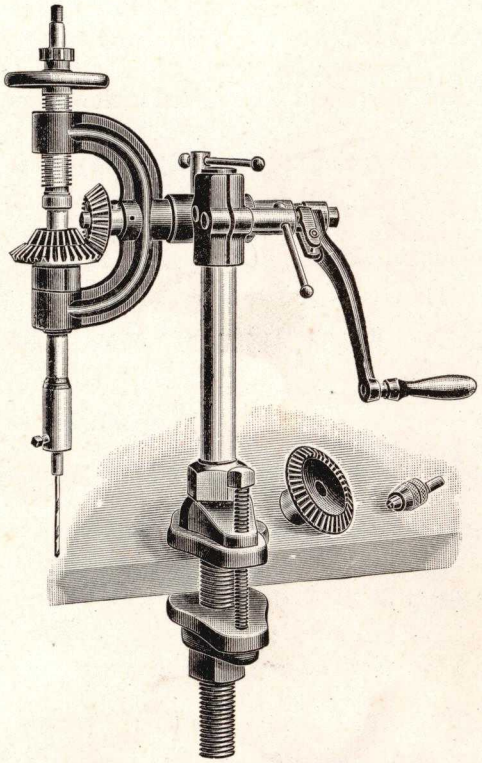
Length with chuck, 11½ inches. Weight, 4½ lbs. Price, $5.00

Code—Decussate

Packed one in a pasteboard box.

Angular and Ratchet Drilling Machines

Nos. 1, 2 and 3



This is a powerful, well-built machine, designed for heavy work. It is attachable either to the bench or to the material to be drilled, and will drill vertically or at any angle, either above or below the bench.

Specifications

Hand feed. Ratchet attachment.

Chuck—three jaw, protected springs. Capacity 0–½ inch round shanks. Supplied except when machine is made to order with taper socket.

Standards, shafts and spindles of polished steel.

Frame, crank, bench clamp and gears of malleable iron, enameled black.

Socket hold in spindle for ½ inch round shanks, but bored to order for ⅝ inch without charge.

No. 1. Geared up, ratio 2 to 1. Ball bearing.

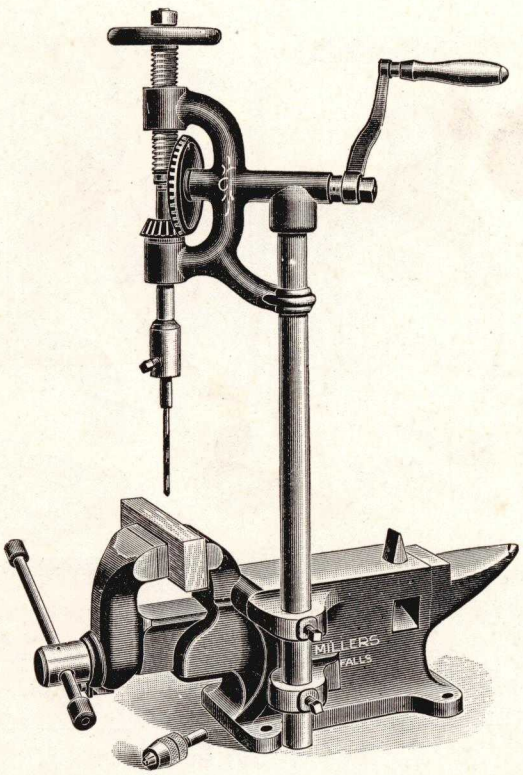
No. 2. Has two sets of gears, making either geared up 1¾ to 1, or geared back 1 to 1¾. Plain hardened anti-friction bearing.

No. 3. Geared back, ratio 1 to 2. Plain hardened anti-friction bearing.

Nos.	1	2	3
Height of standard	25½ in.	25½ in.	28½ in.
Capacity, holes up to	⅝ in.	1 in.	1½ in.
Drill extensible outward from standard	½ to 5¾ in.	6–8 in.	7–10½ in.
Weight boxed	50 lbs.	86 lbs.	135 lbs.
Weight net	34 lbs.	68 lbs.	108 lbs.
Price	$45.00	$53.50	$61.25
Code	*Dentil*	*Depict*	*Deploy*

Made to order with hole for taper socket, extra, net $2.00. State size of taper wanted.

Anvil, Vise and Drill
No. 225



This machine is a combination of three bench tools made into one useful and convenient tool for general shop use.

This drill can be used at any height within capacity of the 24 inch standard and swung around to any point within its 4½ inch radius. When swung away from the vise, work can be done below the bench.

The machine is well built in every particular and will stand up under all kinds of work up to its full capacity.

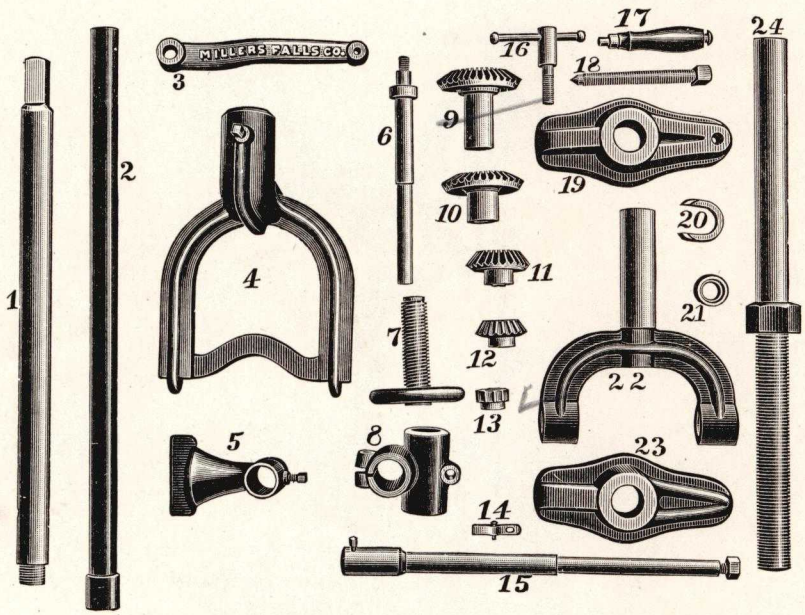
Specifications

Hand feed. Gear ratio 2¼ to 1. Socket hole ½ inch in diameter.
Chuck—three jaw, protected springs. Capacity 0–½ inch round shanks.
Standard and spindle of steel, polished. Vise, cast iron with inserted steel faces, 3½ inch jaws.
Anvil, steel faces 4 x 8 inches. Hardie is provided.

	Anvil, Vise and Drill	Anvil and Vise	Drilling Attachment
Weight net	80 lbs.	60 lbs.	20 lbs.
Price	$53.00	30.25	22.50
Code	*Depone*	*Depot*	*Depute*
Weight gross	105 lbs.		

Packed one in a wooden box.

Parts and Prices of Angular Drilling Machines, and Anvil, Vise and Drill



Part	*Name of Part*	*No. 1*	*No. 2*	*No. 3*	*No. 225*
3	Crank	$1.40	$1.45	$1.95	$ .75
6	Cross shaft	1.60	2.35	1.75	1.40
7	Feed wheel	2.85	3.10	3.60	2.50
8	Double joint	2.80	3.20	4.95	....
*9	Large gear	....	3.30	....	....
*10	Gear	....	1.45	....	....
*11	Gear	....	1.75	....	....
*12	Gear	....	1.65	....	....
13	Ratchet gear	.60	1.10	.70	....
14	Ratchet dog	.20	.20	.20	....
15	Drill spindle	3.70	4.15	6.25	2.05
16	Double joint screw	.95	.95	.95	....
17	Crank handle and bolt	1.10	1.10	1.45	1.00
18	Clamp screw	.45	.45	.45	....
19	Upper clamp	1.30	2.85	3.75	....
20	Yoke	....	.10	....	....
21	Ball bearing cup	.10	....	....	....
22	Fork arm	4.65	5.35	5.95	4.40
23	Lower clamp	1.40	1.45	2.50	....
24	Standard and nut	4.85	5.65	6.95	....
*25	Large gear	1.80	....	3.50	1.80
*26	Small gear	1.80	....	2.50	1.20
27	Spindle collar	.60	.75	.75	.35

In ordering parts, state weight of part wanted as well as number, that it may be determined whether for Machine No. 1, 2, 3 or 225.

*In ordering gears, state diameter and number of teeth.

Note—Parts Nos. 1, 2, 4 and 5 illustrated above are now obsolete. They were used on our No. 5 Track Drill which was discontined some time ago.



PUSH DRILLS

For the rapid drilling of small holes in wood, there is no tool superior to a Millers Falls Push Drill. The drill point is placed, you push, the handle rebounds and you push again. No easier or quicker way to drill a small hole can be imagined.

Forty years' experience in the making of this type of tool insures mechanical perfection in every detail.

The spindle and spiral groove of each drill are of steel or brass, and are accurately and smoothly machined. The center nut, which is the most essential working part, is of Tobin bronze; the chucks are strong, and hold with positive grip. The result is a tool of utmost durability.

There are seven different styles from which to choose. You will find service and satisfaction in every one.

Push Drill



No. 800

The feature of this drill is the magazine in the handle containing the eight drill points.

The handle is released by pressure of the thumb upon a small plunger. As the handle is pulled downward all of the points are in plain sight and selection of any desired point is readily made.

The points are separated from each other by metal partitions in the magazine, so each size is always in its place. Size of drill is plainly marked against each compartment.

Magazine locks securely so there is no chance of losing any of the points.

The diameter of the handle is less than on similar tools. This not only adds to its appearance, but gives a more comfortable grip as well.

It is our newest drill and embodies every feature essential to this type of tool.

Specifications

Chuck holds with positive grip the specially notched points supplied with drill.

Steel handle, handsomely knurled.

Center nut, Tobin bronze, exceptionally long wearing.

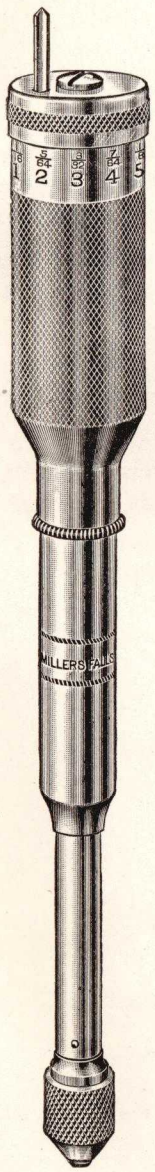
Steel spirals. Polished and nickeled over all.

Length 10½ inches. Weight each, 12 oz. Price each, $2.65

Code—Delsarte

Packed one in a pasteboard box.

Push Drill



180

No. 180

The main point of difference between this drill and No. 800 is in the method of removing the drills from the handle. Instead of the handle pulling down, the cap revolves permitting the drills to be tipped out into the hand. Pressing a catch releases the cap easily. Locks securely.

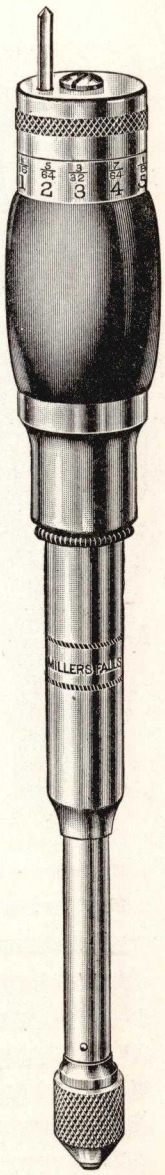
Specifications

Same as No. 800, except that the spirals are of brass.

Length 10½ inches. Weight each, 10 oz.
Price each, $2.50

Code—Desert

Packed one in a pasteboard box.



79

No. 79

This drill is identical with No. 180, except that a portion of the handle is of stained hardwood, shaped to give a firm, comfortable grip.

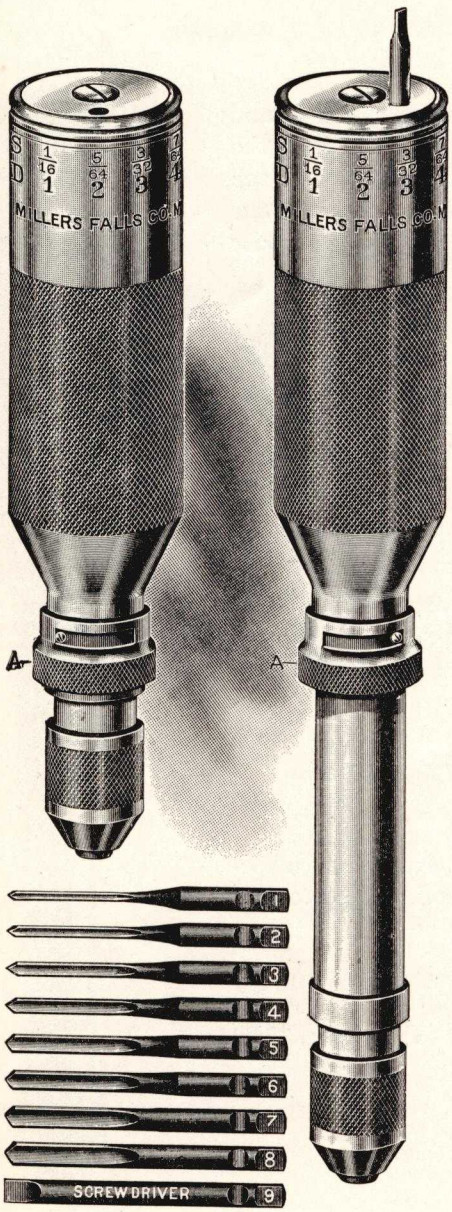
Specifications

Same as No. 180. Weight each, 10 oz. Price each, $2.30

Code—Destine

Packed one in a pasteboard box.

Pocket Push Drill



No. 8

This drill is unique in design, and is different from any other push drill made. As its name implies, it can be carried in the pocket, ready for use, any time, anywhere.

When not in use, the chuck tube telescopes into the handle and is locked by slipping the knurled ring over a pin on the plunger.

It can be used in places inaccessible to the ordinary push drill, because it is three inches shorter even when extended.

When compressed it can be used as a screw driver for light work. A screw driver point is furnished for this purpose.

It is a compact, powerful little drill, handy for everyone to own.

Specifications

Chuck holds with positive grip the specially notched points supplied with drill.

Steel handle, handsomely knurled.

Center nut Tobin bronze.

Spirals, hollow brass tubes.

Polished and nickeled overall.

Length extended, 7¼ in. Compressed, 4⅞ in.

Weight each, 12 oz. Price each, $3.50

Code—Deter

Packed one in a pasteboard box.

Push Drills

No. 3



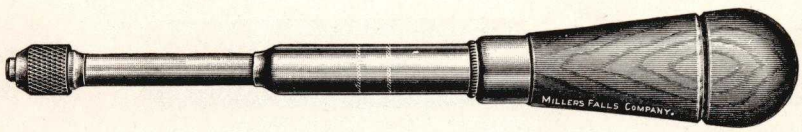
This is a neat, all metal drill with handle somewhat smaller in diameter than the other numbers and without magazine for drills. For this reason, is lower priced. Eight drill points are supplied in a separate wooden box. Finish and other details identical with No. 180.

Length 10 inches. Weight each, 9 oz. Price each, $2.00

Code—Deterge

Packed one in a pasteboard box.

No. 4



Those who prefer a wooden handle will like this drill. The handle is of cocobolo wood and fits the hand comfortably. The end is hollow with screw cap and contains eight drill points each in a separate cell. Handle is highly polished. Metal parts polished and nickeled.

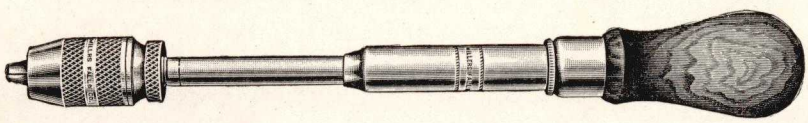
Chuck and other details same as No. 180.

Length 11 inches. Weight each, 11 oz. Price each, $2.25

Code—Detinue

Packed one in a pasteboard box.

No. 45



Certain types of work require a larger drilling range than is possible with our other push drills. To meet this need, we offer this drill equipped with a three jaw chuck which holds round shank drills up to ¼ inch.

Cocobolo handle, highly polished. Metal parts polished and nickeled.

Knurled check nut prevents chuck from working loose.

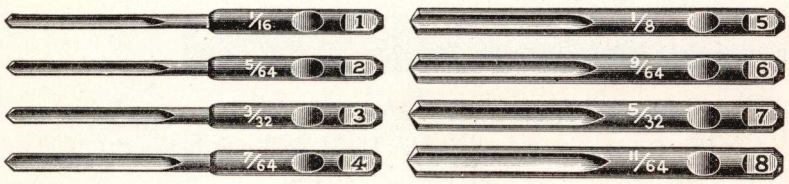
Length 11¾ inches. Weight each, 12 oz. Price each, $2.60

Code—Detritus

Packed one in a pasteboard box.

Push Drill Points

New Style



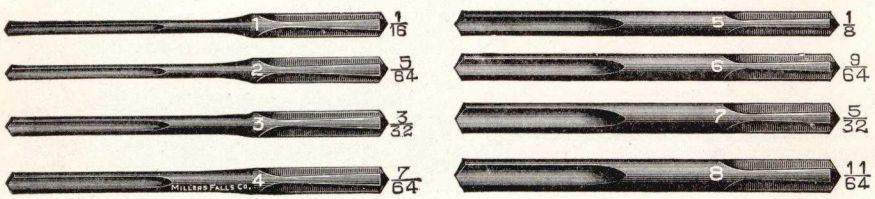
This type of point fits all push drills illustrated on preceding pages. Packed one set or one dozen in a wooden box.

Price per set (8 points) $.55
Code—Detort

Price per dozen .80
Code—Detour

Old Style (Fluted Shanks)

These points with fluted shanks fit our older types of push drills.

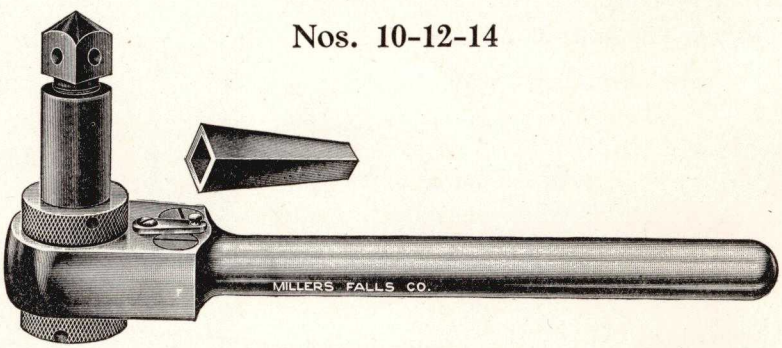


Price per set (8 points) $.55
Code—Dexaco

Price per dozen $.80
Code—Dexile

Ratchet Drill

Nos. 10-12-14



This tool is made for drilling in cramped quarters where it is impossible to use a breast or chain drill.

Ratchet can be used for either right or left hand work.

Socket hole holds shanks 5/8 x 3/8 x 1½ inch. Extra socket to hold Bit shanks is furnished with each tool. Distance from top of feed screw to mouth of socket, four inches. Japanned handle, other parts polished with machinists' finish.

Nos.	10	12	14
Length of lever	10 in.	12 in.	14 in.
Weight each	2½ lbs.	3 lbs.	3½ lbs.
Price each	$7.50	7.75	8.00
Code	*Decollate*	*Decoy*	*Decree*

Packed one in a pasteboard box.

CHUCKS

Millers Falls Chucks bear an enviable reputation for accuracy and serviceability.

For these reasons they are in demand wherever chucks are used.

There are a number of tools and machines made by other manufacturers which have Millers Falls Chucks as standard equipment.

The jaws which are the vital part of the tool are machined and ground with precision, and grip round shanks tightly and accurately. They are carefully adjusted into the socket and close by pressure of the spindle.

The springs which control the jaws are situated far down in the base where they cannot possibly be injured by a drill shank.

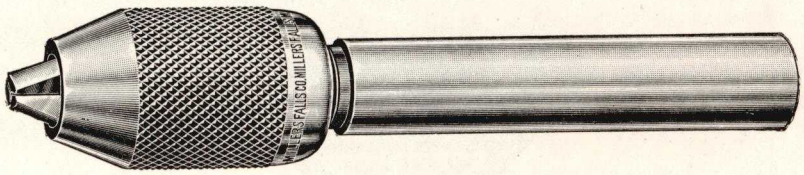
The chuck shell is of steel, and is shaped to give a firm grip in tightening.

All styles are handsomely knurled and polished.

They are guaranteed to give satisfaction.

Chucks

No. 4



Specifications

Capacity 0–3/16 inch round shanks. Outside diameter 13/16 inch.
Dimensions of shank 2½ x ½ inch.

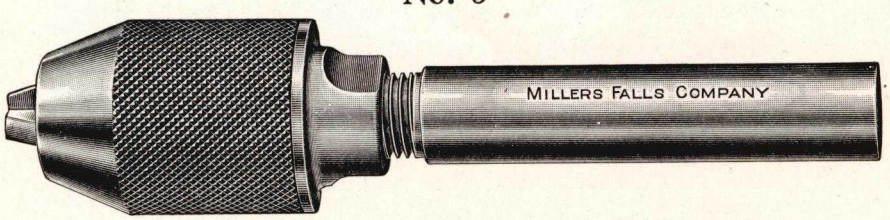
Weight, 6 oz. *Code—Wade* Price, $1.35

Packed one in a pasteboard box.

Without Shank Price, $1.00

Code—Water

No. 5



Specifications

Capacity 0–¼ inch round shanks. Outside diameter 1 inch.
Dimensions of shank 2½ x ½ inch.

Weight, 7 oz. *Code—Wafer* Price each, $1.75

Packed one in a pasteboard box.

Without Shank Price each, $1.40

Code—Wait

With Shank 41/64 inch. Price, $1.75

Code—Wager

Chucks

No. 6



Specifications

Capacity 0–⅜ inch round shanks. Outside diameter 1¼ inch.
Dimensions of shank 2½ x ½ inch.

Weight 10 oz. *Code—Waft* Price, $2.15

Packed one in a pasteboard box.

Without Shank Price, $1.70

Code—Walz

With Shank 41/64 inch Price, $2.15

Code—Waif

No. 7



Specifications

Capacity 0–½ inch round shanks. Outside diameter 1½ inch.
Dimensions of shank 2½ x ½ inch.

Weight 17 oz. *Code—Wag* Price, $3.00

Packed one in a pasteboard box.

Without Shank Price, $2.35

Code—Walk

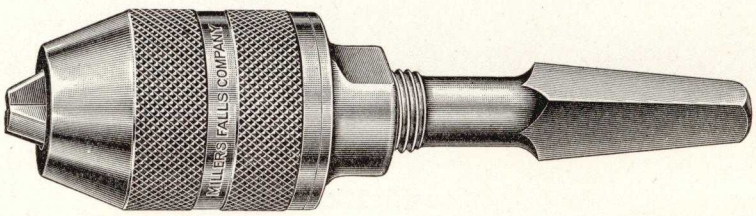
With Shank 41/64 inch. Price, $3.00
Code—Wain

With Shank ⅞ inch. Price, $3.00
Code—Wake

Chucks

These Chucks have the same body as Nos. 5, 6 and 7. The shanks only are different. They are of the bit shank pattern which permits use in bit braces, breast drills, and other tools, which hold this type of shank.

No. 15



Capacity 0–¼ inch. Outside diameter of chuck 1 inch.

Weight 6 oz. *Code—Wale* Price each, $2.15

Packed one in a pasteboard box.

No. 16

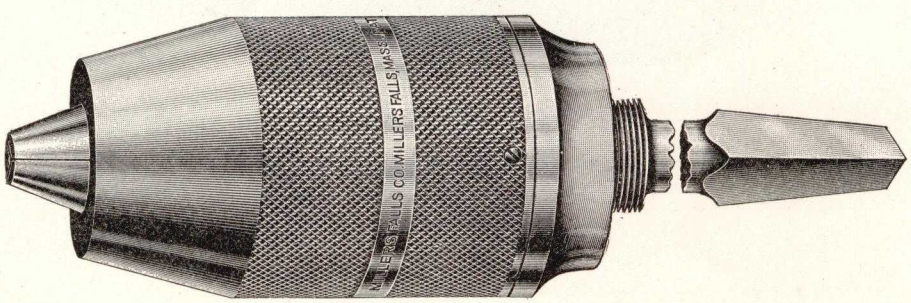


Capacity 0–⅜ inch. Outside diameter of chuck 1¼ inch.

Weight 10 oz. *Code—Wallet* Price each, $3.00

Packed one in a pasteboard box.

No. 17

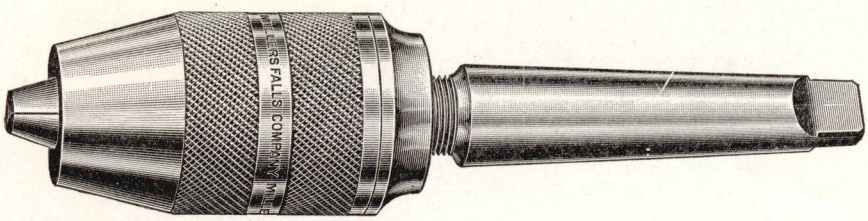


Capacity 0–½ inch. Outside diameter of chuck 1½ inch.

Weight 17 oz. *Code—Wallow* Price each, $3.50

Packed one in a pasteboard box.

Chucks With Taper Shanks



These Chucks are the same as Nos. 4, 5, 6 and 7, except have Taper Shanks. These shanks are accurately made and are according to Morse Standard. The length given is of taper only and does not include tang.

Specifications

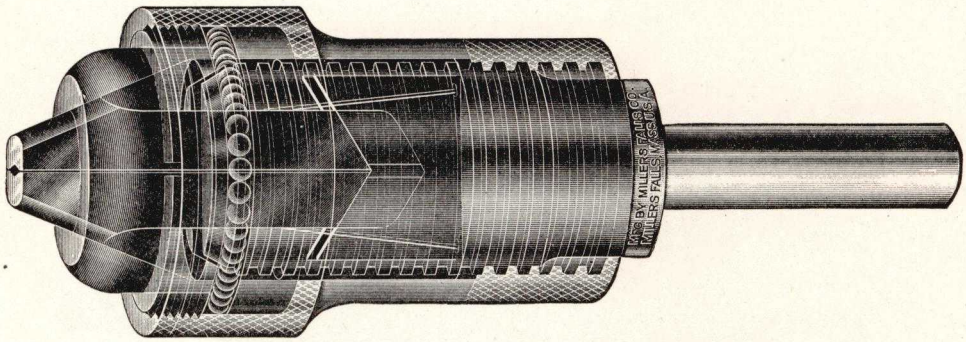
Chuck	Taper No. 1		No. 2		No. 3		No. 4	
No.	Price	*Code*	Price	*Code*	Price	*Code*	Price	*Code*
4	$1.90	*Whistle*	$2.05	*Whoop*				
5	2.25	*Whole*	2.40	*Where*				
6	2.60	*Whimper*	2.75	*Whorl*	$3.35	*Whiskers*		
7	3.40	*Wheeze*	3.55	*Whet*	4.20	*Wherry*	$5.00	*Whelp*

No. 1 Taper is 2 1/8 in. long; largest diameter .475 in.; smallest diameter .369 in.
No. 2 Taper is 2 9/16 in. long; largest diameter .700 in.; smallest diameter .572 in.
No. 3 Taper is 3 3/16 in. long; largest diameter .938 in.; smallest diameter .778 in.
No. 4 Taper is 4 1/16 in. long; largest diameter 1.231 in.; smallest diameter 1.020 in.

When ordering it is essential to specify the number of Chuck as well as the size number of taper.

Lathe Chucks

No. 152



The feature of this Chuck is its extraordinary gripping power.

The inner shell or hood revolves with the jaws within the outer shell, thus eliminating practically all friction against the jaws. Ball bearings run between the inner hood and outer shell, which reduce this friction to a minimum. It is easily tightened or released without the use of a wrench.

Specifications

Capacity—bit shanks, round from 1/8 to 1/2 inch and No. 1 Morse taper shanks.
Jaws—hardened steel. Parallel milling grips along entire length.
Hardened adjusting screw to take up wear on balls. Check nut prevents loosening.
Polished and nickel plated. Length overall 5¾ inch. Outside diameter of chuck 1¼ inch.

Dimensions of shank 2½ x ½ inch. Weight each, 20 oz. Price each, $2.50

Code—Wad

Furnished with shanks 15/16 (*Code—Wadet*) or 41/64 in. (*Code—Wadom*) in diameter without extra charge.

Special straight, or taper shanks, to order 50c extra. Packed one in a pasteboard box.

No. 150



This is our well-known Master Chuck, which is so popular on our No. 732 series of braces, equipped with shank for lathe purposes.

Specifications

Capacity—bit shanks, round from 1/8 to 1/2 inch and No. 1 Morse taper shanks.
Jaws—hardened steel. Same patent milling as on No. 152. Polished overall.
Length overall 5 inch. Outside diameter of chuck 1½ inch.

Dimensions of shank 2½ x ½ inch. Weight each, 1 lb. Price each, $2.00

Code—Walnut

Furnished with shanks 15/16 in. (*Code—Walrus*) or 41/64 in. (*Code—Wampum*) in diameter without extra charge.

Special straight or taper shanks, to order 50c. extra. Packed one in a pasteboard box.

TOOL HOLDERS

Millers Falls tool holders are built to withstand the hard usage that is generally given to this type of tool.

The handles on Nos. 1, 4 and 5 are of the finest cocobolo, shaped to fit the hand comfortably, and with exceptionally smooth, highly polished surfaces. Threads on screw caps are deep and clean cut.

The socket and shell threads are carefully cut in order to mesh perfectly and insure holding the shell tight against the jaws.

The tools are of high grade steel carefully tempered, and honed to a keen cutting edge.

SCREW DRIVERS

Screw drivers are rapidly becoming an important part of the Millers Falls line of fine tools.

The newest addition to the line is our Ratchet Screw Driver No. 63. This tool is worth particular mention, primarily because it overcomes the weakness common to ratchet screw drivers generally, namely, friction in the ratchet mechanism.

Eliminating this friction results in greater power, and saves the bother of having to first tighten the screw, or have it turn out from the backward turn of the blade as rapidly as turned in by the forward turn.

It is a tool of excellent proportion, in which is incorporated light weight, without the sacrifice of strength and compactness, without the loss of efficiency.

In addition to this tool there are plain and automatic reversible types, also screw driver bits; all made with the usual Millers Falls care and precision.

Tool Holders

No. 1



Specifications

Handle—Cocobolo. Highly polished.
Chuck and jaws nickel plated.
Length of handle 6 inches.

Weight each, ½ lb.

Length of tools 1¾ inches.
Number of tools 20.

Price each, $1.80

Code—Weft

Packed one-half dozen in a pasteboard box.

No. 4



Specifications

Same finish as No. 1.
Length of handle 6¼ inches.

Weight each, 10 oz.

Length of tools 2¼ inches.
Number of tools 10.

Price each, $2.25

Code—Weir

Packed one in a pasteboard box.

No. 5



Specifications

Same finish as No. 1.
Length of handle 7½ inches.

Weight each, 14 oz.

Length of tools 4 inches.
Number of tools 10.

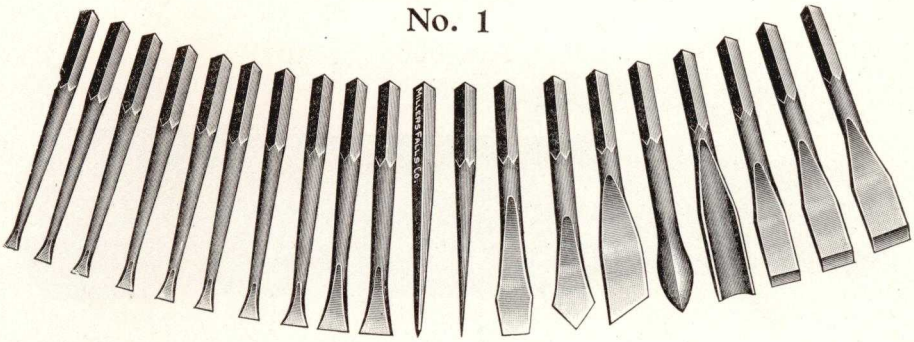
Price each, $3.10

Code—Weld

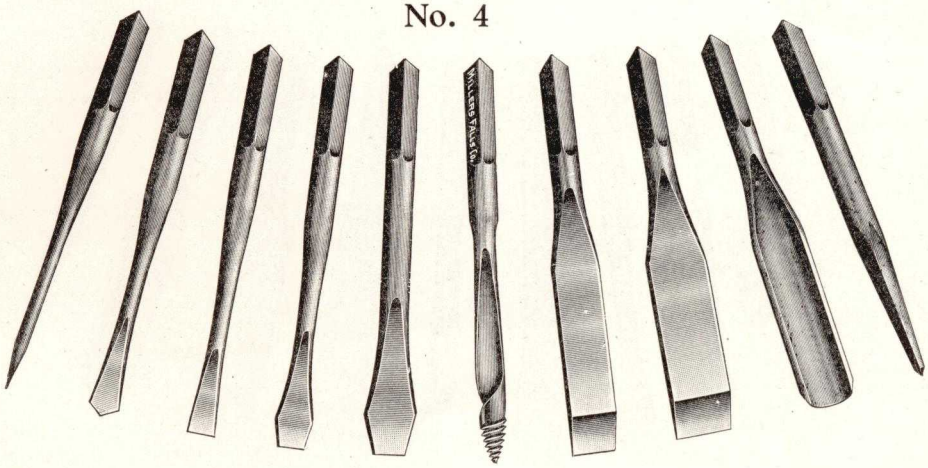
Packed one in a pasteboard box.

Tools for Tool Holders

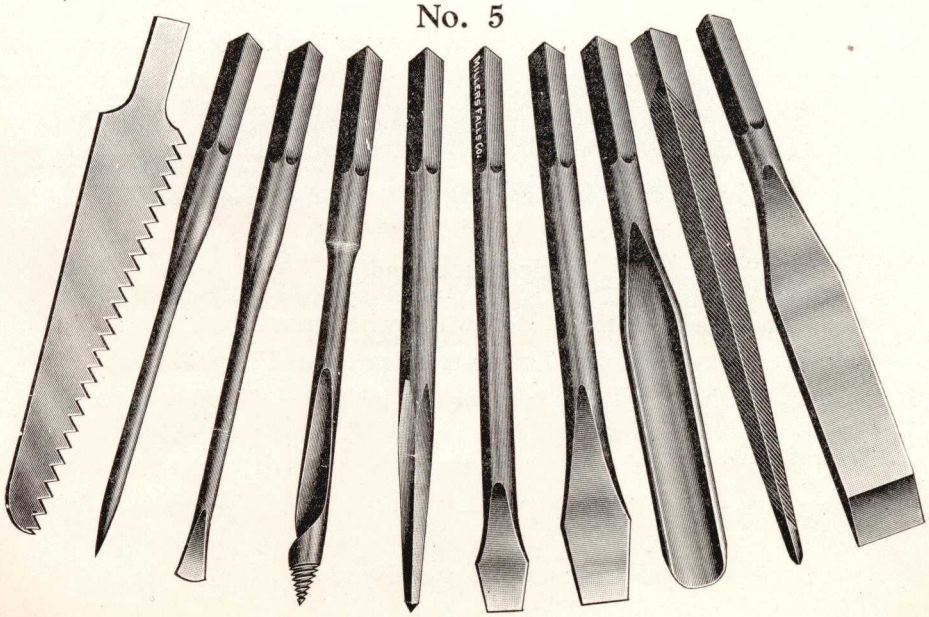
No. 1



No. 4

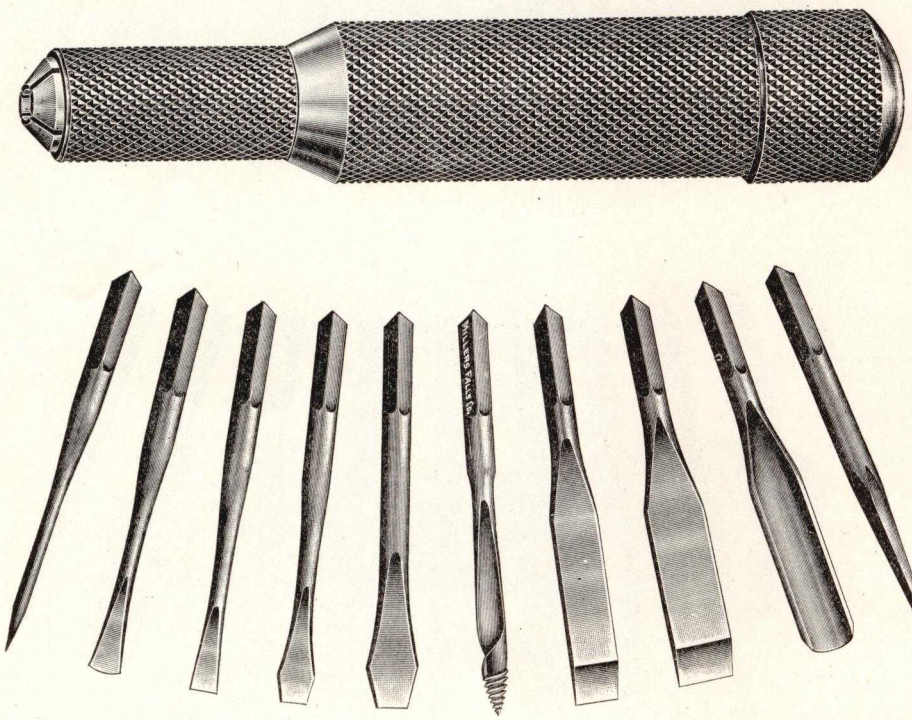


No. 5



Tool Holder

No. 600



This tool is made entirely of steel, and for this reason the handle can be made smaller.

Because of its size can be conveniently carried in the pocket. Is handy for hammering small objects such as tacks and nails.

The tools are made of high grade steel, carefully tempered, and honed to a fine cutting edge.

The chuck holds the shanks with a vise-like grip.

Specifications

Handle—steel, handsomely knurled. Hollow end with screw cap.

Chuck—knurled. Jaws—hardened steel. Nickel plated overall.

Length of handle 5 inches. Length of tools 2¼ inches. Number of tools 10.

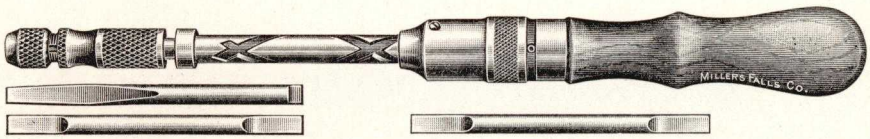
Weight each, 9 oz. Price each, $2.15

Code—Whose

Packed one in a pasteboard box.

Automatic Reversible Screw Drivers

No. 41



This tool drives or draws screws quickly by forward thrusts of the handle or can be locked at any point on the spiral and used as an ordinary screw driver.

The spiral grooves on the plunger are cut to different depths in order to lessen wear at the crossing points. This lessens friction and adds to the life of the tool. The pitch of the grooves gives the tool a powerful stroke.

Turning adjusting sleeve operates driver either to right or to left as desired.

The revolving sleeve which is grasped between the thumb and fingers is a great convenience in steadying the tool.

Three screw driver bits, two with double end, are furnished.

Specifications

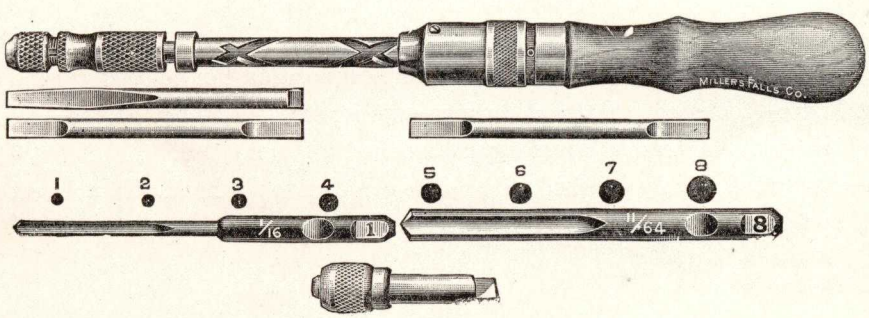
Length extended 17¾ inches. Length closed 12 inches.
Chuck holds with positive grip by means of locking device. Plunger is of steel.
Dogs operating in grooves are of Tobin bronze. Handle is of hardwood stained.
All exposed metal parts are polished and nickel plated.

Weight each, 1¼ lbs. Price each, $3.40

Code—Canon

Packed one in a pasteboard box.

No. 42



This is the same screw driver as No. 41, but with the addition of a drill chuck and eight wood boring points ranging from 1/16 to 11/16 inch in diameter.

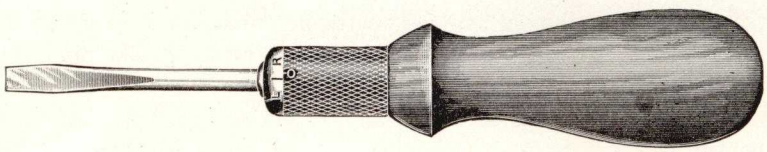
Weight each, 1 lb., 9 oz. Price each, $4.35

Code—Cant

Packed one in a pasteboard box.

Ratchet Screw Drivers

No. 63



Those who have frequent use for a screw driver will find this ratchet type much easier, speedier and more convenient than the ordinary driver.

The ratchet operates smoothly, noiselessly and without friction, and is so constructed that the mechanism cannot get bent, broken or out of order.

It is a compact, strong tool, well proportioned and handsomely finished.

Specifications

Ratchet operates by means of cam in rear of shifter sleeve, self-locking on pawls. Operates either to right or left by turning shifter ring. In vertical position can be used as solid screw driver.

Ratchet Pawls—tool steel. Ratchet Springs—spring steel. Ratchet Frame—cold rolled steel.

Blade—highest quality screw driver steel, hardened and tempered.

Handle—hardwood, highly polished. Shaped to conform to the hand. Thumb rest at lower end.

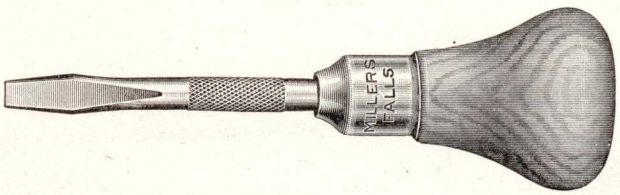
Exposed metal parts polished and nickel plated.

Lengths	3 in.	4 in.	5 in.
Weight (½ dozen)	1⅞ lbs.	2¼ lbs.	2⅝ lbs.
Price each	$.85	.90	1.00
Code	*Cato*	*Cater*	*Catole*

Packed one-half dozen in a pasteboard box.

Screw Drivers

No. 66

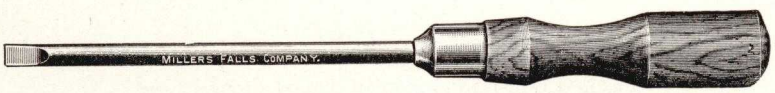


A handy little tool with a multitude of uses about the home, office or automobile. Blade is knurled to give firm grip in starting screws. Cocobolo handle. Polished steel blade.

Length of blade	1½ in.	2½ in.	3½ in.
Weight per dozen	9 oz.	11 oz.	12 oz.
Price per dozen	$2.45	2.50	2.60
Code	*Cap*	*Capable*	*Capability*

Packed one dozen in a pasteboard box.

No. 75



A light, well-made screw driver adapted for delicate work. The blades are of special screw driver steel, forged, hardened and tempered. The blades are ground on the side edges as well as on the edge and flats, so will follow into a hole with diameter same size as round of blade.

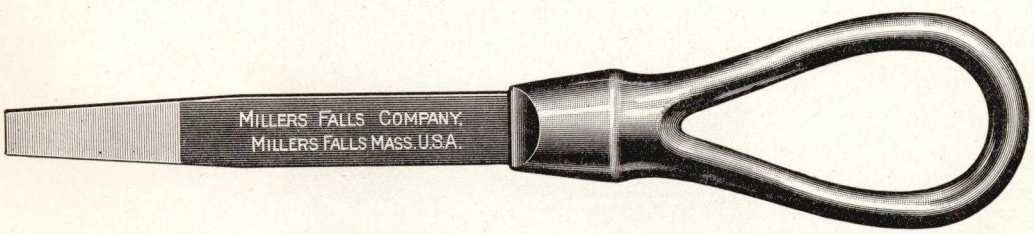
Blade securely fastened into handle.

Cocobolo handle. Polished blade, nickel plated ferrule.

Length of blade	2½ in.	3½ in.
Weight per dozen	11 oz.	12 oz.
Price per dozen	$2.40	2.50
Code	*Castinet*	*Castile*

Packed one dozen in a pasteboard box.

No. 65



An exceptionally strong screw driver made entirely of iron. The handle is shaped to give an easy grip to the hand, and affords a powerful purchase against stubborn screws.

The blade is forged, and is cast into the handle.

Tip of blade polished. Remainder of tool enameled red.

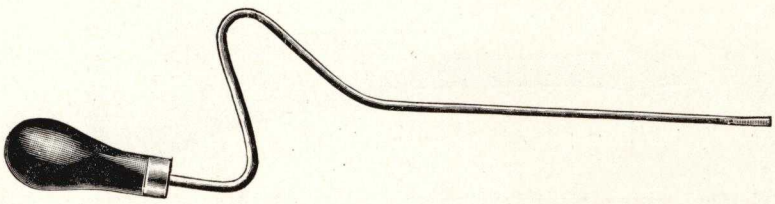
Length overall 5¼ inches. Weight per dozen, 1½ lbs. Price per dozen, $1.95

Code—Capsicum

Packed one dozen in a pasteboard box.

Screw Driver

No. 64



This new type of screw driver works on the principle of a bit brace, and turns in screws more rapidly than the ordinary driver. Easily operated with one hand by inserting thumb in bend of blade and rotating.

Specifications

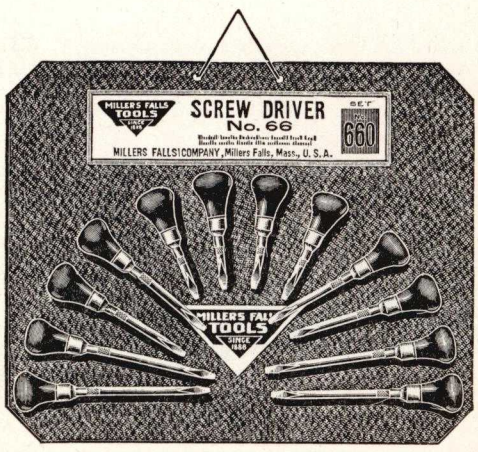
Offset in shank affords firm grip in tightening screw.
Blade is securely fastened into the handle. Length overall 12 inches.
Blade cabinet type. Special screw driver steel. Polished. Handle, hardwood stained.
Weight (½ dozen) 1¾ lbs. Price each, $.45

Code—Catis

Packed one-half dozen in a pasteboard box.

Screw Driver Set

No. 660



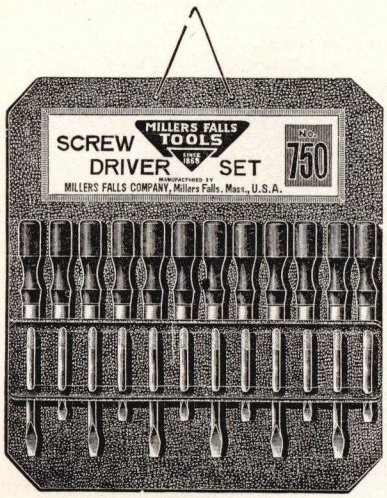
No. 66 screw drivers sell readily from this neat display card. Set comprises four each 1½, 2½ and 3½ inch, attractively mounted on heavy cardboard, covered with dark green paper.

Weight per set, 1 lb. Price per set, $2.85

Code—Capped

Each set wrapped singly in heavy paper.

Screw Driver Sets



No. 750

This set is made up of six each 2½ and 3½ inch No. 75 screw drivers. Card is of same material as No. 660 set.

Takes up but little room and insures a rapid turnover on these tools.

Weight per set, 1 lb.

Price per set, $2.70

Code—Canton

Each set wrapped singly in heavy paper.

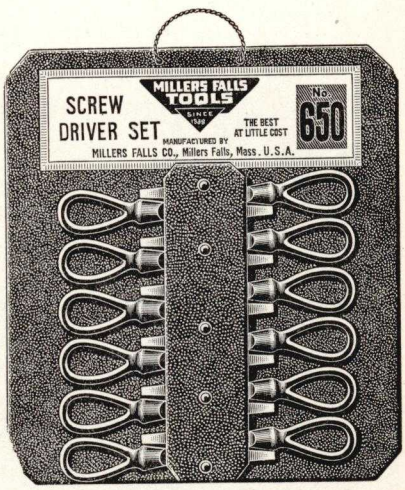
No. 650

Twelve screw drivers No. 65 make up this display. The card attracts attention wherever placed and stimulates sales.

Weight per set, 1¾ lbs.

Price per set, $2.15

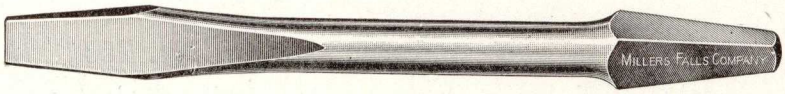
Code—Capsule



Each set wrapped singly in heavy paper.

Screw Driver Bits

Nos. 4–10.



A hammer forged bit superior to the ordinary tool of this type. None but high grade steel is used in its manufacture and special attention is given to the hardening and tempering.

The points are carefully formed and accurately fit the slots for which they are intended. Made in two lengths and five sizes.

No.	4	5	6	8	10
Width of point inches	4/16	5/16	6/16	8/16	10/16
For screws Nos.	6 to 8	8 to 12	12 to 16	16 to 20	20 to 24
Weight per dozen, 4 inch	5 oz.	6 oz.	8 oz.	10 oz.	11 oz.
Price per dozen, 4 inch	$3.75	3.90	4.10	4.25	4.45
Code	*Carpet*	*Carthage*	*Carter*	*Cartoon*	*Cartux*
Weight per dozen, 6 inch	7 oz.	9 oz.	13 oz.	15 oz.	17 oz.
Price per dozen, 6 inch	$3.90	4.40	4.50	4.70	4.90
Code	*Casper*	*Caston*	*Cassock*	*Cashier*	*Cashen*

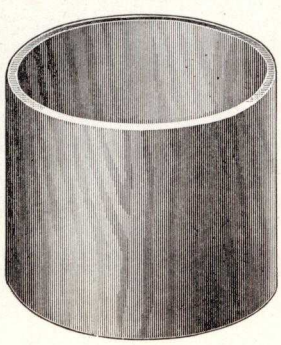
Packed one-half dozen in a pasteboard box.

Screw Driver Bit Set

No. 456



If one has frequent use for screw driver bits, this set will be found a great convenience.



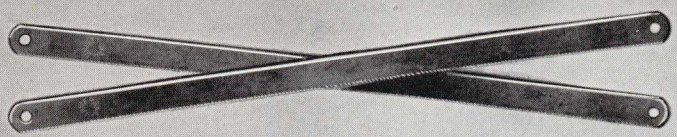
Selection of the desired point is easily made, and the bits are always in place.

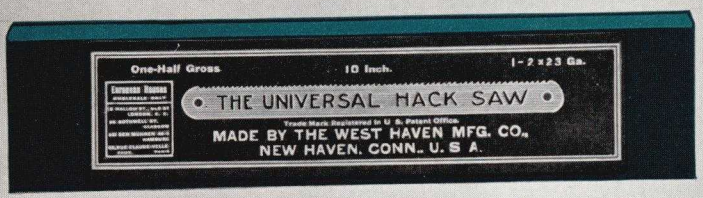
Set contains four each Nos. 4, 5 and 6/16 inch bits 4 inch length. Box is of hardwood, varnished.

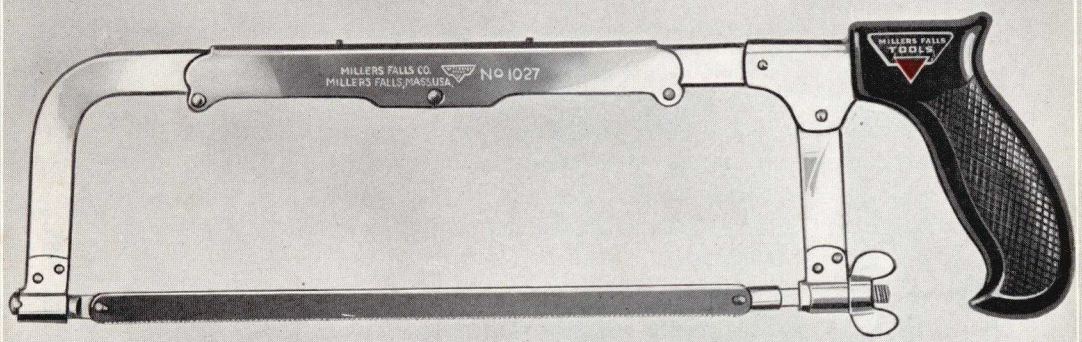
Weight each 1 lb., 3 oz.

Price per set, $4.70

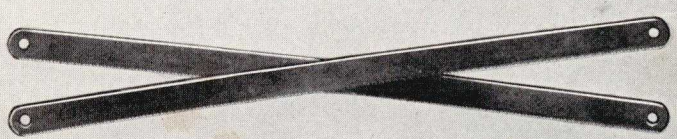
Code—Caxton




One-Half Gross
10 Inch.
1-2 x 23 Ga.
THE UNIVERSAL HACK SAW
Trade Mark Registered in U. S. Patent Office.
MADE BY THE WEST HAVEN MFG. CO.,
NEW HAVEN, CONN., U. S. A.


MILLERS FALLS CO.
MILLERS FALLS, MASS. U.S.A.
No 1027
MILLERS FALLS TOOLS


MILLERS FALLS TOOLS
MILLERS FALLS
HAND HACK SAWS (HARD) TUNGSTEN
MILLERS FALLS
No. 3
10 in
14 T
MILLERS FALLS COMPANY, MILLERS FALLS, MASS., U. S. A.



MILLERS FALLS TOOLS SINCE 1868

HACK SAW BLADES

For over forty years the Millers Falls Company has marketed hack saw blades. In August, 1920, we became manufacturers as well as distributors of our own hack saw blades. At that time we acquired complete control of the West Haven Mfg. Co. of West Haven, Conn., which for twenty-four years had successfully made the "Universal" hack saw (often called the "Globe" saw because of the Globe stamp used as a trade mark). This blade was of recognized sterling quality. To the "Universal" brand we added a blade under our own name "Millers Falls".

Both are made of a special analysis of tungsten steel, the result of many years of study of hack sawing problems.

The teeth are milled, which insures a sharp, solid cutting edge. The style of set is patented, and is unexcelled for accuracy and clearance. The saws cut freely until worn dull. Each blade is hardened *individually*. This insures a uniformity impossible in the common method of hardening in lots of four to twelve.

The hand blades are made in both all hard and flexible types—the power blades, all hard only. The range of lengths, widths, gauges and teeth cuts, cover every possible hack sawing requirement.

The Millers Falls standard has ever been set high for precision, honesty and fine design in tool making. Confidence has long been shown by the trade in stocking and distributing Millers Falls tools. The same confidence can well be placed in Millers Falls and Universal hack saws.

MILLER FALLS Hand Hack Saws

All Hard (Tungsten)



No.	Length	Width	Gauge	Teeth	Price per Gross	Code	No. in Box	Weight per Gross
1	8	7/16	025–23	14	$8.00	*Rabbet*	½ gross	3½ lbs.
2	9	7/16	025–23	14	9.00	*Rabble*	½ gross	4 lbs.
3	10	½	025–23	14	10.00	*Race*	½ gross	5 lbs.
4	11	½	025–23	14	11.00	*Rack*	½ gross	5½ lbs.
5	12	9/16	025–23	14	12.00	*Radiant*	½ gross	7 lbs.
6	12	⅝	028–22	14	16.80	*Radish*	½ gross	9 lbs.
7	14	⅝	028–22	14	19.44	*Rafter*	½ gross	11 lbs.
11	8	7/16	025–23	18	8.00	*Rage*	½ gross	3½ lbs.
12	9	7/16	025–23	18	9.00	*Rail*	½ gross	4 lbs.
13	10	½	025–23	18	10.00	*Raise*	½ gross	5 lbs.
14	11	½	025–23	18	11.00	*Ram*	½ gross	5½ lbs.
15	12	9/16	025–23	18	12.00	*Ranch*	½ gross	7 lbs.
16	12	⅝	028–22	18	16.80	*Rancor*	½ gross	9 lbs.
17	14	⅝	028–22	18	19.44	*Random*	½ gross	11 lbs.
21	8	7/16	025–23	24	8.00	*Range*	½ gross	3½ lbs.
22	9	7/16	025–23	24	9.00	*Ranson*	½ gross	4 lbs.
23	10	½	025–23	24	10.00	*Rapid*	½ gross	5 lbs.
24	11	½	025–23	24	11.00	*Rapture*	½ gross	5½ lbs.
25	12	9/16	025–23	24	12.00	*Rare*	½ gross	7 lbs.
31	8	7/16	025–23	32	8.00	*Rasp*	½ gross	3½ lbs.
32	9	7/16	025–23	32	9.00	*Rather*	½ gross	4 lbs.
33	10	½	025–23	32	10.00	*Ratify*	½ gross	5 lbs.
34	11	½	025–23	32	11.00	*Rattle*	½ gross	5½ lbs.
35	12	9/16	025–23	32	12.00	*Rave*	½ gross	7 lbs.

All hard blades are recommended for general all around work and are always furnished unless flexible are specified.

Suggestions for Using Hand Blades

Insert blade in frame with teeth pointing away from operator.

Strain blade tightly.

Bear down on forward stroke sufficiently to avoid sliding saw over the work.

Sliding over the surface glazes the cutting edges and dulls the saw.

Always lift the blade on the return stroke. Failure to do so results in rubbing action and rapid dulling.

Retighten blade after the first few strokes. This prevents wobbling and crooked cutting.

Thirty-five to forty strokes per minute is fast enough. Too rapid cutting draws the temper and ruins the blade.

The chart on page 111 explains the use of each blade.

List Prices above apply only in the United States and Canada.

MILLERS FALLS Hand Hack Saws

Flexible (Tungsten)



No.	Length	Width	Gauge	Teeth	Price per Gross	Code	No. in Box	Weight per Gross
41	8	7/16	025–23	14	$8.00	*Reach*	½ gross	3¼ lbs.
42	9	7/16	025–23	14	9.00	*Ready*	½ gross	3½ lbs.
43	10	½	025–23	14	10.00	*Real*	½ gross	4¾ lbs.
44	11	½	025–23	14	11.00	*Reason*	½ gross	5¼ lbs.
45	12	9/16	025–23	14	12.00	*Rebel*	½ gross	7 lbs.
51	8	7/16	025–23	18	8.00	*Rebuke*	½ gross	3¼ lbs.
52	9	7/16	025–23	18	9.00	*Recall*	½ gross	3½ lbs.
53	10	½	025–23	18	10.00	*Recite*	½ gross	4¾ lbs.
54	11	½	025–23	18	11.00	*Recline*	½ gross	5¼ lbs.
55	12	9/16	025–23	18	12.00	*Record*	½ gross	7 lbs.
61	8	7/16	025–23	24	8.00	*Recover*	½ gross	3¼ lbs.
62	9	7/16	025–23	24	9.00	*Rector*	½ gross	3½ lbs.
63	10	½	025–23	24	10.00	*Reduce*	½ gross	4¾ lbs.
64	11	½	025–23	24	11.00	*Refine*	½ gross	5¼ lbs.
65	12	9/16	025–23	24	12.00	*Refresh*	½ gross	7 lbs.
71	8	7/16	025–23	32	8.00	*Regent*	½ gross	3¼ lbs.
72	9	7/16	025–23	32	9.00	*Relate*	½ gross	3½ lbs.
73	10	½	025–23	32	10.00	*Renew*	½ gross	4¾ lbs.
74	11	½	025–23	32	11.00	*Resort*	½ gross	5¼ lbs.
75	12	9/16	025–23	32	12.00	*Retreat*	½ gross	7 lbs.

Flexible blades differ from "all hard" in that the teeth only are hardened.

Recommended for use particularly on thin sections of soft materials, both sheet and tubing.

Superior to the "all hard" for use in out of the way places, and when frame must be held in other than a normal position.

Electricians, plumbers and steam fitters will find this type of blade more economical than "all hard".

Special Flexible Suggestions

Flexible blades should be strained tighter in frame than "all hard".

Because they stretch more readily tension should be increased frequently while in use.

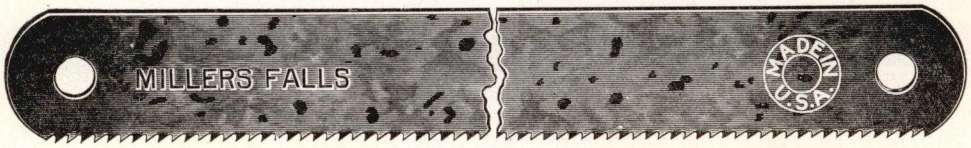
When starting a new blade in an old cut, give work a greater turn if possible. This will overcome the binding due to wider set of new blade.

The chart on page 111 explains the use of each blade.

List Prices above apply only in the United States and Canada.

MILLERS FALLS Power Hack Saws

All Hard (Tungsten)



No.	Length	Width	Gauge	Teeth	Price per Gross	Code	No. in Box	Weight per Gross
100	10	3/4	049–18	10	$24.72	*Robin*	1/3 gross	15 1/2 lbs.
120	12	3/4	032–21	14	21.36	*Rock*	1/2 gross	11 1/2 lbs.
121	12	3/4	049–18	10	28.92	*Roller*	1/3 gross	17 3/4 lbs.
122	12	3/4	049–18	14	28.92	*Roman*	1/3 gross	17 3/4 lbs.
123	12	1	049–18	10	37.92	*Romp*	1/4 gross	24 1/2 lbs.
124	12	1	049–18	14	37.92	*Rope*	1/4 gross	24 1/2 lbs.
125	12	5/8	032–21	14	17.88	*Rober*	1/2 gross	10 lbs.
126	12	5/8	032–21	18	17.88	*Robot*	1/2 gross	10 lbs.
140	14	3/4	032–21	14	24.36	*Rose*	1/2 gross	13 3/4 lbs.
141	14	3/4	049–18	10	33.12	*Roster*	1/4 gross	20 lbs.
142	14	3/4	049–18	14	33.12	*Rotate*	1/4 gross	20 lbs.
143	14	1	049–18	10	43.56	*Rouble*	1/4 gross	28 lbs.
144	14	1	049–18	14	43.56	*Rough*	1/4 gross	28 lbs.
145	14	1	065–16	10	50.88	*Round*	1/4 gross	36 lbs.
160	16	1	049–18	10	49.08	*Rout*	1/4 gross	32 lbs.
161	16	1	049–18	14	49.08	*Rove*	1/4 gross	32 lbs.
162	16	1	065–16	10	56.88	*Royal*	1/4 gross	42 1/2 lbs.
170	17	3/4	032–21	14	29.04	*Ruby*	1/3 gross	17 lbs.
171	17	1	049–18	10	51.72	*Ruddy*	1/4 gross	34 lbs.
172	17	1	049–18	14	51.72	*Ruffle*	1/4 gross	34 lbs.
173	17	1	065–16	10	59.52	*Rug*	1/4 gross	45 lbs.
180	18	1	049–18	10	54.36	*Rumble*	1/4 gross	35 lbs.
181	18	1	065–16	10	62.04	*Rumor*	1/4 gross	47 lbs.
182	18	1 1/2	065–16	8	90.24	*Rung*	1/12 gross	74 lbs.
210	21	1	049–18	10	62.04	*Runner*	1/4 gross	43 lbs.
211	21	1	065–16	10	70.44	*Rural*	1/4 gross	56 lbs.
240	24	1	049–18	10	70.32	*Russet*	1/4 gross	47 lbs.
241	24	1	065–16	10	79.32	*Rustic*	1/4 gross	62 lbs.
242	24	1 1/2	065–16	6	119.04	*Rustle*	1/12 gross	128 lbs.
243	24	1 1/2	065–16	8	119.04	*Ruth*	1/12 gross	128 lbs.

14″ and 17″ power hack saws are 1/2″ less to centers than length given. All other blades are true to lengths stated.

Too light a pressure allows saw to slide, dull quickly and without cutting effectively.

Rigidity is important. Wherever possible lock work securely in a vise.

Place work so that as much bearing as possible is provided for the saw.

The use of cutting solutions will greatly increase your output, and prolong the life of the blades.

Cutting dry on light machines, run 50 strokes per minute.

Cutting with solution on medium and heavy machines, 100 strokes per minute are recommended for soft machinery steel and wrought iron. Seventy to eighty strokes for hard tool or annealed steel.

The chart on page 111 explains the use of each blade.

List Prices above apply only in the United States and Canada.

MILLER FALLS Hack Saw Chart

In order to obtain the maximum cutting from a hack saw blade, and a resulting minimum sawing cost, it is imperative that the proper saw is used.

In hand blades the number of teeth per inch is the chief consideration; in power blades the width and gauge also are essential factors.

The chart below illustrates clearly and concisely the correct blade to use on any given material. This chart is made up from actual tests made in our own plant and will, if followed, reduce direct sawing costs as well as the cost of saws.

Length in Inches	Width in Inches	Thickness	HAND ALL HARD Order by Numbers Below: Brass, Copper, Soft Steel, Cast Iron, Aluminum — 14 Teeth	HAND ALL HARD: Iron Pipe, Tool Steel, Light Angle Iron — 18 Teeth	HAND ALL HARD: Drill Rod, Medium Tubing, Sheet Metals — 24 Teeth	HAND ALL HARD: Thin Tubing, Electric Casings, Thin Sheet Metals — 32 Teeth	HAND FLEXIBLE Order by Numbers Below: Brass, Copper, Soft Steel, Cast Iron, Aluminum — 14 Teeth	HAND FLEXIBLE: Iron Pipe, Tool Steel, Light Angle Iron — 18 Teeth	HAND FLEXIBLE: Drill Rod, Medium Tubing, Sheet Metals — 24 Teeth	HAND FLEXIBLE: Thin Tubing, Electric Casings, Thin Sheet Metals — 32 Teeth	List Price per Gross
8	7/16	23 Ga.—.025″	No. 1	No .11	No. 21	No. 31	No. 41	No. 51	No. 61	No. 71	$8.00
9	7/16	23 Ga.—.025″	No. 2	No. 12	No. 22	No. 32	No. 42	No. 52	No. 62	No. 72	9.00
10	½	23 Ga.—.025″	No. 3	No. 13	No. 23	No. 33	No. 43	No. 53	No. 63	No. 73	10.00
11	½	23 Ga.—.025″	No. 4	No. 14	No. 24	No. 34	No. 44	No. 54	No. 64	No. 74	11.00
12	9/16	23 Ga.—.025″	No. 5	No. 15	No. 25	No. 35	No. 45	No. 55	No. 65	No. 75	12.00
12	⅝	22 Ga.—.028″	No. 6	No. 16	.....	.....	.....	.....	.....	.....	16.80
14	⅝	22 Ga.—.028″	No. 7	No. 17	.....	.....	.....	.....	.....	.....	19.44

POWER BLADES (Order by Numbers Below)

Length in Inches	21 Ga.—.032 x ¾ For Light Power Mach.: Annealed Tool Steel, Soft Steel — 14 Teeth	List Price per Gross	18 Ga.—.049 x ¾ For Medium Power Mach.: Heavy Angle Iron, Iron Pipe, Cast Iron — 10 Teeth	Tool Steel, Hard Metals — 14 Teeth	List Price per Gross	18 Ga.—.049 x 1″ For Heavy Power Mach.: Soft Steel, Annealed Tool Steel, Brass, Copper — 10 Teeth	Steel Tubing, Tool Steel, Light Angle Iron — 14 Teeth	List Price per Gross	16 Ga.—.065 For Extra Heavy Power Mach.: Soft Steel, Large Work — 6 Teeth	Machinery Steel, Steel Rails — 8 Teeth	Tool Steel, Angle Iron, Small Work — 10 Teeth	List Price per Gross
10	.....	.....	No. 100	.....	$24.72	.....	.....	.....	.....	.....	.....	.....
12	No. 120	$21.36	No. 121	No. 122	28.92	No. 123	No. 124	$37.92	.....	.....	.....	.....
12	No. 125	17.88	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	No. 126*	17.88	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	No. 140	24.36	No. 141	No. 142	33.12	No. 143	No. 144	43.56	.....	.....	No. 145	$50.88
16	.....	.....	.....	.....	.....	No. 160	No. 161	49.08	.....	.....	No. 162	56.88
17	No. 170	29.04	.....	.....	.....	No. 171	No. 172	51.72	.....	.....	No. 173	59.52
	.....	.....	.....	.....	.....	.....	.....	.....	.....	No. 182	.....	90.24
18	.....	.....	.....	.....	.....	No. 180	.....	54.36	.....	.....	No. 181	62.04
21	.....	.....	.....	.....	.....	No. 210	.....	62.04	.....	.....	No. 211	70.44
											No. 241	79.32
24	.....	.....	.....	.....	.....	No. 240	.....	70.32	No. 242	No. 243	.....	119.04

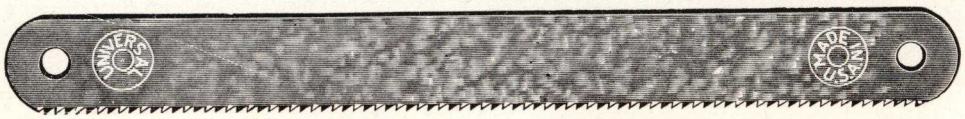
* Has 18 teeth. Adapted especially for Thin Sections and Hard Tool Steel.

The above numbers apply to Millers Falls Blades, but the chart is applicable to Universal blades as well. Simply omit the blade number and note length, width, gauge and teeth.

List Prices above apply only in the United States and Canada.

UNIVERSAL Hand Hack Saws

All Hard (Tungsten)



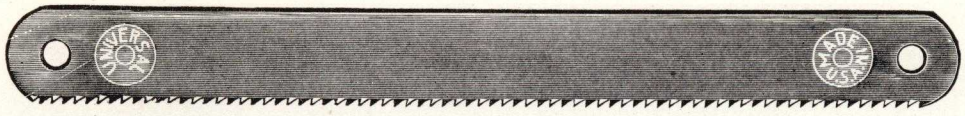
Length	Width	Gauge	Teeth	Price Per Gross	Code	No. in Box	Weight per Gross
8	7/16	23–025	14	$8.00	*Tab*	½ gross	3¼ lbs.
9	7/16	23–025	14	9.00	*Tabard*	½ gross	3½ lbs.
10	½	23–025	14	10.00	*Tabaret*	½ gross	4¾ lbs.
10	⅝	22–028	14	14.40	*Tabular*	½ gross	7¾ lbs.
11	½	23–025	14	11.00	*Tabulate*	½ gross	5¼ lbs.
12	9/16	23–025	14	12.00	*Tacit*	½ gross	7 lbs.
12	⅝	22–028	14	16.80	*Tack*	½ gross	8¾ lbs.
14	⅝	22–028	14	19.44	*Tackle*	½ gross	9¾ lbs.
8	7/16	23–025	18	8.00	*Tabby*	½ gross	3¼ lbs.
9	7/16	23–025	18	9.00	*Tabes*	½ gross	3½ lbs.
10	½	23–025	18	10.00	*Tabid*	½ gross	4¾ lbs.
10	⅝	22–028	18	14.40	*Tabinet*	½ gross	7¾ lbs.
11	½	23–025	18	11.00	*Table*	½ gross	5¼ lbs.
12	9/16	23–025	18	12.00	*Tableau*	½ gross	7 lbs.
12	⅝	22–028	18	16.80	*Tabloid*	½ gross	8¾ lbs.
14	⅝	22–028	18	19.44	*Taboo*	½ gross	9¾ lbs.
8	7/16	23–025	24	8.00	*Tact*	½ gross	3¼ lbs.
9	7/16	23–025	24	9.00	*Tactic*	½ gross	3½ lbs.
10	½	23–025	24	10.00	*Taction*	½ gross	4¾ lbs.
11	½	23–025	24	11.00	*Tadpole*	½ gross	5¼ lbs.
12	9/16	23–025	24	12.00	*Taffeta*	½ gross	7 lbs.
8	7/16	23.025	32	8.00	*Tag*	½ gross	3¼ lbs.
9	7/16	23–025	32	9.00	*Tail*	½ gross	3½ lbs.
10	½	23–025	32	10.00	*Tailor*	½ gross	4¾ lbs.
11	½	23–025	32	11.00	*Take*	½ gross	5¼ lbs.
12	9/16	23–025	32	12.00	*Talc*	½ gross	7 lbs.

For general all round work. This type is always furnished unless flexible is specified.
16 and 20 pitch furnished in all sizes if specified.
Prices given for unlisted sizes on application.

List Prices above apply only in the United States and Canada.

UNIVERSAL Hand Hack Saws

Flexible (Tungsten)



Length	Width	Gauge	Teeth	Price per Gross	Code	No. in Box	Weight per Gross
8	7/16	23–025	14	$ 8.00	*Talker*	½ gross	3¼ lbs.
9	7/16	23–025	14	9.00	*Tall*	½ gross	3½ lbs.
10	½	23–025	14	10.00	*Tallow*	½ gross	4¾ lbs.
11	½	23–025	14	11.00	*Tally*	½ gross	5¼ lbs.
12	9/16	23–025	14	12.00	*Talon*	½ gross	7 lbs.
8	7/16	23–025	18	8.00	*Tamely*	½ gross	3¼ lbs.
9	7/16	23–025	18	9.00	*Tamp*	½ gross	3½ lbs.
10	½	23–025	18	10.00	*Tamper*	½ gross	4¾ lbs.
11	½	23–025	18	11.00	*Tan*	½ gross	5¼ lbs.
12	9/16	23–025	18	12.00	*Tandem*	½ gross	7 lbs.
8	7/16	23–025	24	8.00	*Tangible*	½ gross	3¼ lbs.
9	7/16	23–025	24	9.00	*Tangle*	½ gross	3½ lbs.
10	½	23–025	24	10.00	*Tansit*	½ gross	4¾ lbs.
11	½	23–025	24	11.00	*Tank*	½ gross	5¼ lbs.
12	9/16	23–025	24	12.00	*Tankard*	½ gross	7 lbs.
8	7/16	23–025	32	8.00	*Tannic*	½ gross	3¼ lbs.
9	7/16	23–025	32	9.00	*Tanning*	½ gross	3½ lbs.
10	½	23–025	32	10.00	*Tansy*	½ gross	4¾ lbs.
11	½	23–025	32	11.00	*Tantrum*	½ gross	5¼ lbs.
12	9/16	23–025	32	12.00	*Tap*	½ gross	7 lbs.

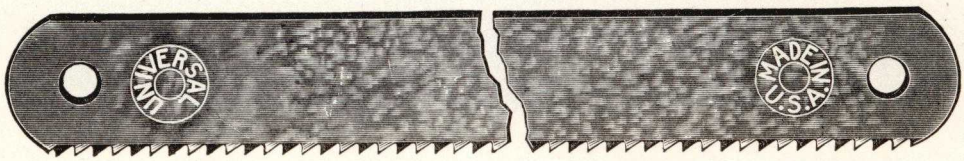
Teeth only are hardened. Adapted especially for cutting pipe, tubing and all thin material.
16 and 20 pitch furnished in all sizes if specified.
Prices given for unlisted sizes on application.

The chart on page 111 explains the use of each blade.

List Prices above apply only in the United States and Canada.

UNIVERSAL Light Power Hack Saws

All Hard (Tungsten)



Length	Width	Gauge	Teeth per inch	Price per Gross	Code	No. in Box	Weight per Gross
12	5/8	21–032	14	$17.88	*Tapioca*	1/2 gross	9 3/4 lbs.
12	5/8	21–032	18	17.88	*Tapir*	1/2 gross	9 3/4 lbs.
12	3/4	21–032	14	21.36	*Tapping*	1/2 gross	11 1/2 lbs.
12	3/4	21–032	18	21.36	*Tapster*	1/2 gross	11 1/2 lbs.
14	3/4	21–032	14	24.36	*Tare*	1/2 gross	12 1/2 lbs.
17	3/4	21–032	14	29.04	*Tarnish*	1/3 gross	17 lbs.

Medium Power Hack Saws

10	3/4	18–049	10	$24.72	*Tarry*	1/3 gross	15 1/4 lbs.
12	3/4	18–049	10	28.92	*Tarsus*	1/3 gross	17 3/4 lbs.
12	3/4	18–049	14	28.92	*Tart*	1/3 gross	17 3/4 lbs.
12	1	18–049	10	37.92	*Tartly*	1/4 gross	24 1/2 lbs.
12	1	18–049	14	37.92	*Task*	1/4 gross	24 1/2 lbs.
14	3/4	18–049	10	33.12	*Tattoo*	1/4 gross	20 lbs.
14	3/4	18–049	14	33.12	*Taunt*	1/4 gross	20 lbs.
14	1	18–049	10	43.56	*Tavern*	1/4 gross	28 lbs.
14	1	18–049	14	43.56	*Taw*	1/4 gross	28 lbs.
14	1 1/4	18–049	8	53.52	*Tawney*	1/12 gross	37 lbs.
14	1 1/4	18–049	10	53.52	*Tax*	1/12 gross	37 lbs.
16	1	18–049	10	49.08	*Tear*	1/4 gross	32 lbs.
17	1	18–049	10	51.72	*Telephathy*	1/4 gross	34 lbs.
17	1	18–049	14	51.72	*Telephone*	1/4 gross	34 lbs.
18	1	18–049	10	54.36	*Tell*	1/4 gross	37 lbs.
20	1	18–049	10	59.52	*Temperance*	1/4 gross	41 lbs.
21	1	18–049	10	62.04	*Tempest*	1/4 gross	43 lbs.
24	1	18–049	10	70.32	*Tempter*	1/4 gross	47 lbs.

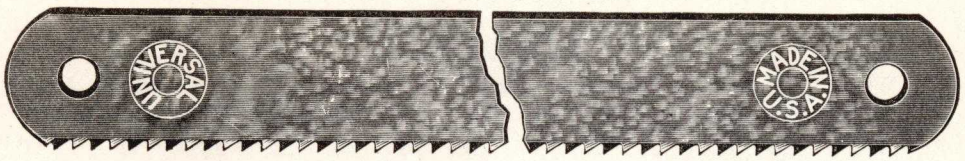
14″ and 17″ power hack saws are 1/2″ less to centers than length given. All other blades are true to length stated.

The chart on page 111 explains the use of each blade.

List Prices above apply only in the United States and Canada.

UNIVERSAL Heavy Power Hack Saws

All Hard (Tungsten)



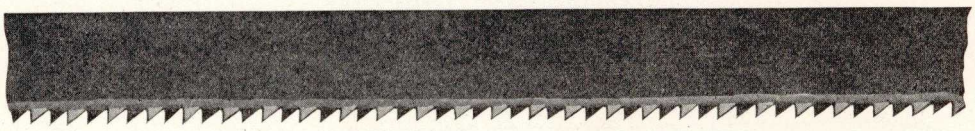
Length	Width	Gauge	Teeth	Price per Gross	Code	No. in Box	Weight per Gross
14	1	16–065	8	$50.88	*Tether*	¼ gross	32½ lbs.
14	1	16–065	10	50.88	*Templar*	¼ gross	
16	1	16–065	10	56.88	*Text*	¼ gross	42½ lbs.
17	1	16–065	8	59.52	*Thaw*	¼ gross	44 lbs.
17	1	16–065	10	59.52	*Theatre*	¼ gross	44 lbs.
18	1	16–065	8	62.04	*Thigh*	¼ gross	48 lbs.
18	1	16–065	10	62.04	*Thiget*	¼ gross	48 lbs.
18	1½	16–065	6	90.24	*Thiro*	1/12 gross	74 lbs.
18	1½	16–065	8	90.24	*Thirst*	1/12 gross	74 lbs.
20	1	16–065	10	67.92	*Thread*	¼ gross	54 lbs.
21	1	16–065	10	70.44	*Thrill*	¼ gross	56 lbs.
24	1	16–065	10	79.32	*Throter*	¼ gross	63 lbs.
24	1½	16–065	6	119.04	*Thrower*	1/12 gross	99¾ lbs.
24	1½	16–065	8	119.04	*Thumble*	1/12 gross	99¾ lbs.

14″ and 17″ power hack saws are ½″ less to centers than length given. All other saws are true to length stated.

The chart on page 111 explains the use of each blade.

List Prices above apply only in the United States and Canada.

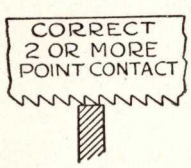
MILLERS FALLS Metal Cutting Band Saws



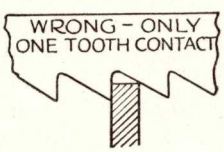
Code	Width	Gauge	Teeth Per Inch								List Per Ft.	Price Joining	Feet Per Lb.
Banwas	3/16	23–.025	..	..	14	16	18	20	24	32	.07	.20	75
Banwat	¼	23–.025	..	12	14	16	18	20	24	32	.07	.20	60
Banwau	⅜	23–.025	10	12	14	16	18	20	24	32	.07	.20	35
Banwav	½	23–.025	10	12	14	16	18	20	24	..	.07	.20	25
Banwaw	⅝	21–.032	10	12	14	16	18	20	24	..	.08	.25	16
Banwax	¾	21–.032	10	12	14	16	18	20	24	..	.09	.30	12
Banway	1	21–.032	10	12	14	16	18	20	24	..	.11	.30	10

Note—The code word applies to width and gauge only. In ordering specify teeth per inch and length of band together with code word.

On fractions of a foot, there will be no charge if it is under 6 inches, but charge for a full foot all fractions 6 inches or more.



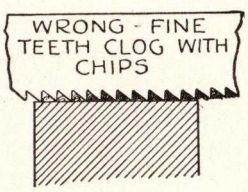
Fine Teeth
Thin Material



Coarse Teeth
Thin Material
Work Bottoms in Clearance



Soft Material



Soft Material

When ordering give the following information if possible:

Length of saw if welded.
Material to be usually cut.
Thickness of section to be cut.
Speed of saw in feet per minute.
Pitch and width of saw previously used.
If trouble developed describe scroll or straight cutting.

"Millers Falls" Band Saws are hardened on the teeth only, leaving the back tough. This prevents the band from cracking or breaking while in operation. While the cutting edges of the teeth are hard enough to cut high speed steel, the base is tough enough to withstand the shock of cutting through the thin fins of bronze castings. There are many advantages to be gained by using band saws, such as cutting gates from irregular shaped castings without distorting them, scroll cutting and many operations of slitting on tool work, etc.

HACK SAW FRAMES

SINCE 1880, in the days of the crude wooden frame, the Millers Falls Company has been identified with the manufacture and development of Hack Saw Frames.

Foremost among the modern frames are the Millers Falls "Pistol Grip" and "Easy Grip" types. The distinguishing feature of these frames is the handle, which conforms to the shape of the hand, and permits perfect control of the frame as far as the arm can reach. Further, this handle eliminates hand cramp, and affords a grip so effective that the wobble, which causes blade breakage, is restricted. Detailed specifications of these frames are given on the pages which follow.

None but high grade, cold drawn, round edge steel is used in Millers Falls frames. The bends are uniformly even so that the blade lines parallel with the back of the frame.

The better grade frames are polished and heavily nickel plated, and the handles, turned out by our own woodworking shop, are characterized by their smooth, highly polished surface.

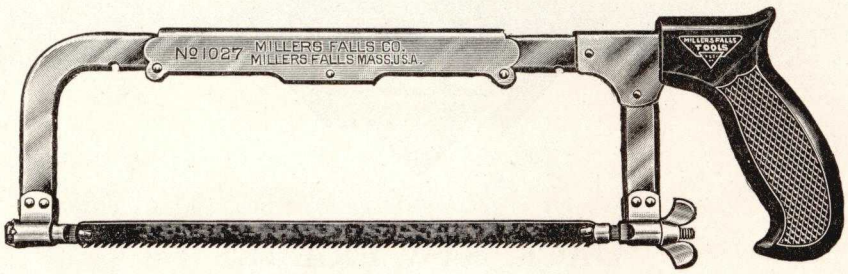
Another special feature is the patent under cut stud, with blade pins set at an angle to prevent saw falling off if turned at right angles in the frame; also the clamp pins which are set diagonal, rather than parallel, to withstand greater strain.

There are twenty-five numbers from which to choose, and while many differ in finish and some little refinement, each one is made to the Millers Falls standard, which is set high for quality.

Hack Saw Frames

"Pistol Grip"

No. 1027



The feature of this frame is its "pistol grip" handle. This handle is moulded in one piece and so designed that the entire frame "hangs" perfectly. Steel rib extending the length of the handle makes it practically unbreakable.

End opposite handle is built close to frame permitting work in very close corners.

Extra strength in middle of back where greatest strain comes. Blades strained by thumb nut under handle where it does not interfere with stroke. Blades faceable in four directions.

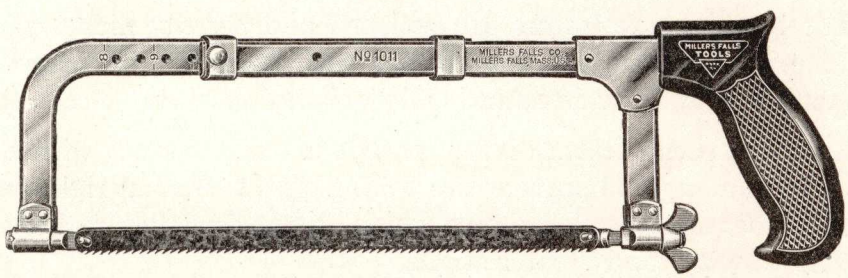
Polished and nickel plated frame. Special black composition handle. One 10 inch blade furnished with each frame.

Capacity	Depth	Stock	Weight each	Price each
8–12 inch	3¼ inch.	3/16 x 11/16 inch.	1¾ lbs.	$2.25

Code—Scalade

Packed one in a pasteboard box.

No. 1011



This frame differs from No. 1027 only in depth and the construction of the back. It has the yoke style of adjustment, which is exceptionally strong and rigid. Back is graduated to show different lengths of saws.

Capacity	Depth	Stock	Weight each	Price each
8–12 inch.	3½ inch.	3/16 x 11/16 inch.	2 lbs.	$2.60

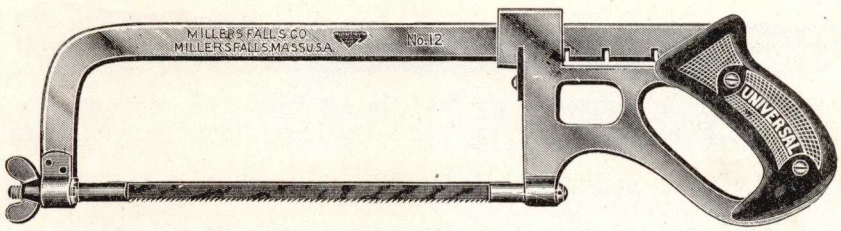
Code—Scalene

Packed one in a pasteboard box.

Hack Saw Frames

"Easy Grip"

No. 12



The handle on this frame affords a grip similar to No. 1027, but differs in construction, it being a part of the adjustable slide on frame. Special black composition handles are screwed on either side.

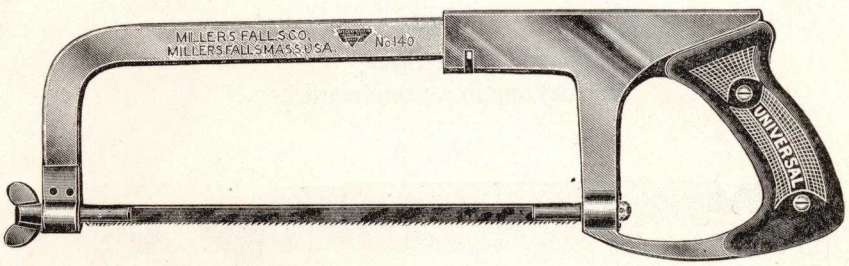
Blades strained by thumb nut and faceable in four directions. Polished and nickel plated frame. One 10 inch blade furnished with each frame.

Capacity	Depth	Stock	Weight each	Price each
8–12 in.	3⅛ in.	3/16 x 13/16 in.	2 lbs.	$2.90

Code—Screen

Packed one in a pasteboard box.

No. 140



This frame differs from No. 12 in that the handle is brought forward closer to the blade, and the housing for the body is extended 2¼ inches forward of the post. This construction insures more rigidity and gives the frame unusual strength.

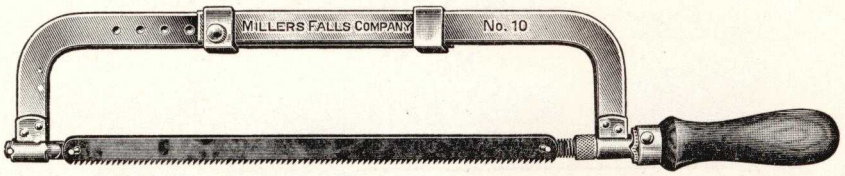
Capacity	Depth	Stock	Weight each	Price each
8–12 in.	3⅛ in.	3/16 x 13/16 in.	2 lbs.	$3.60

Code—Scholar

Packed one in a pasteboard box.

Hack Saw Frames

Nos. 10 and 11



Unusually rigid back. Adjustment easily made by set screw. End opposite handle built close permitting operation in close corners. Check nut keeps blade from falling off if turned at right angle.

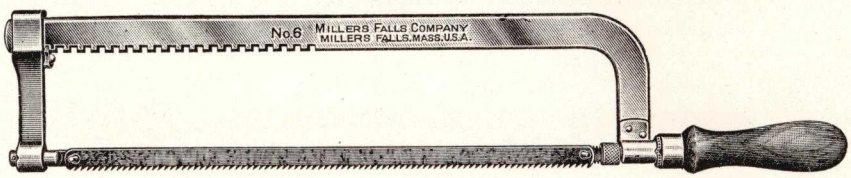
Blades strained by handle and faceable in four directions. Scale for different lengths on back of frame.

Polished and nickel plated. Cocobolo handle. One 10 inch blade with each frame.

	Capacity	Depth	Stock	Weight each	Price each
No. 10	8–12 in.	2⅜ in.	3/16 x 11/16 in.	1 lb., 5 oz.	$2.15
No. 11	8–12 in.	3½ in.	3/16 x 11/16 in.	1½ lbs.	2.25

Code No. 10—Scaur *Code No. 11—Scenic*

No. 6



A compact, stiff frame with solid back, adjustable by means of sliding end post. Otherwise, construction and finish same as No. 10.

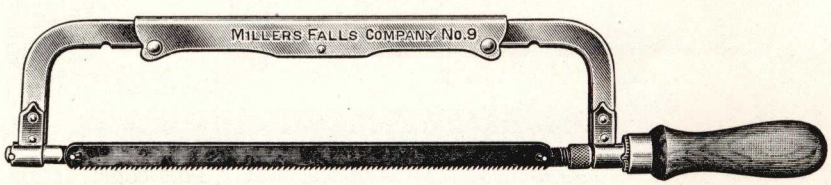
One 12 inch blade furnished with each frame.

Capacity	Depth	Stock	Weight each	Price each
6–12 in.	2¾ in.	3/16 x 13/16 in.	1 lb., 7 oz.	$2.15

Code—Scan

Packed one in a pasteboard box.

No. 9



A light, yet strong frame. Adjustable by means of sheath back. Blades strained by turning handle and can be faced in four directions.

Knurled check nut holds blade in place.

Polished and nickel plated. Cocobolo handle. One 10 inch blade furnished with each frame.

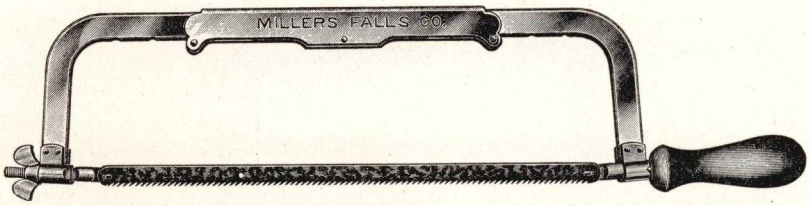
Capacity	Depth	Stock	Weight each	Price each
8–12 in.	2¾ in.	3/16 x 9/16 in.	1 lb., 3 oz.	$1.85

Code—Scapula

Packed one in a pasteboard box.

Hack Saw Frames

No. 27



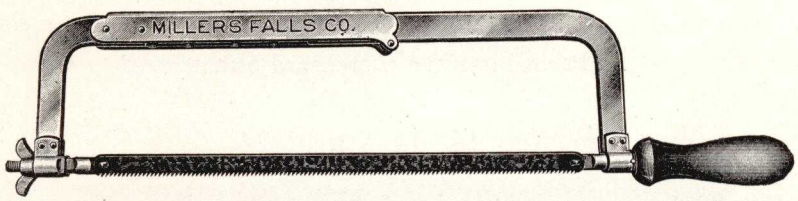
Same back construction as No. 9 but of heavier stock. Blades strained by thumb nut and can be faced in four directions. Polished and nickel plated steel stock. Stained hardwood handle. One 10 inch blade furnished with each frame.

Capacity	Depth	Stock	Weight each	Price each
8–12 in.	3¼ in.	3/16 x 11/16 in.	1 lb., 6 oz.	$1.60

Code—Scath

Packed one in a pasteboard box.

No. 26



A light, stiff frame with sheath back. In this type one end of the frame is solid in back, and adjustment for blades made with opposite end.

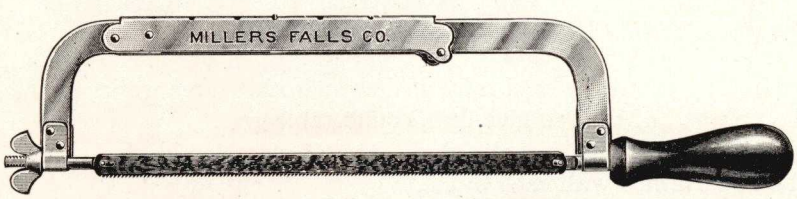
Blades strained by thumb nut and can be faced in four directions. Polished and nickel plated steel. Stained hardwood handle. One 10 inch blade furnished with each frame.

Capacity	Depth	Stock	Weight each	Price each
8–12 in.	3⅛ in.	3/16 x 11/16 in.	1 lb., 6 oz.	$1.20

Code—Scion

Packed one in a pasteboard box.

No. 78



A low priced extensible frame differing from No. 26 only in the size of steel stock and the fact that the square stud can be swivelled without removing stud from the frame.

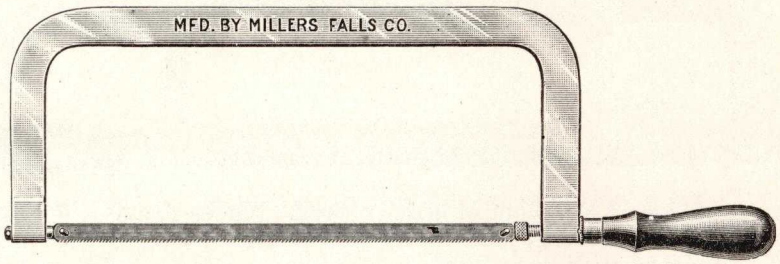
Capacity	Depth	Stock	Weight each	Price each
8–12 in.	2½ in.	5/32 x 11/16 in.	1 lb.	$1.00

Code—Scissel

Packed one in a pasteboard box.

Hack Saw Frames

Nos. 15 and 515



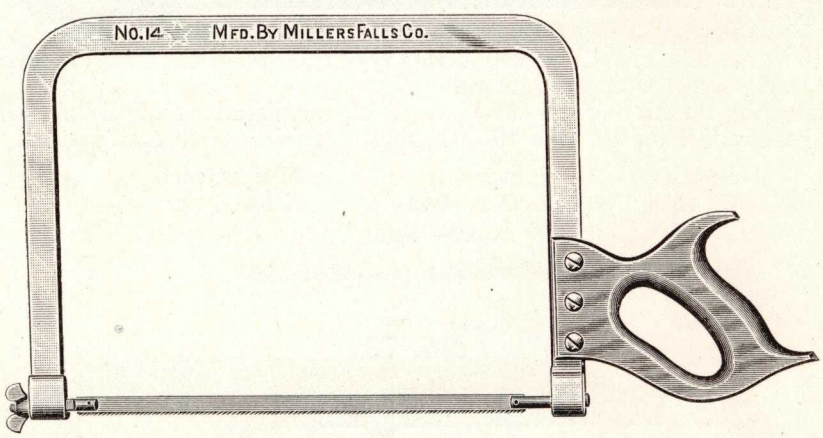
These frames are made extra heavy for work on rails, girders, etc. Blades are strained by turning handle and are faceable in four directions. Knurled check nut holds blade in place.

No. 15 is polished and nickel plated, No. 515 is enameled black. Both have stained hardwood handle. One 12 inch blade furnished with each frame.

	Capacity	Depth	Stock	Weight each	Price each
No. 15	12 in.	5¼ in.	1 x ¼ in.	2 lbs., 7 oz.	$2.70
No. 515	12 in.	5¼ in.	1 x ¼ in.	2 lbs., 7 oz.	2.10
	Code No. 15—Schish			*Code No. 515—Shrapnel*	

Packed one in a pasteboard box.

Nos. 14, 14½ and 24



Deep, heavy frames for sawing steel rails, girders and other large work.
Handle of beech wood, shaped to give firm, comfortable grip.
Nos. 14 and 14½ polished and nickel plated. No. 24 enameled black.
One 12 in. blade furnished with each frame.

	Capacity	Depth	Stock	Weight each	Price each
No. 14	12 in.	10¼ in.	1 x ¼ in.	3 lbs., 10 oz.	$3.90
No. 14½	12 in.	7¼ in.	1 x ¼ in.	3 lbs.	3.60
No. 24	12 in.	10¼ in.	1 x ¼ in.	3 lbs., 10 oz.	2.50
	Code No. 14—Scrag		*Code No. 14 1/2—Scrawl*		*Code No. 24—Screed*

Packed one in a pasteboard box.

Hack Saw Frames

No. 18



A strong rigid frame with solid back, built for the hardest service.

Blades strained by turning handle, and are faceable in four directions. Knurled check nut holds blade in place.

Black enameled steel. Stained hardwood handle.

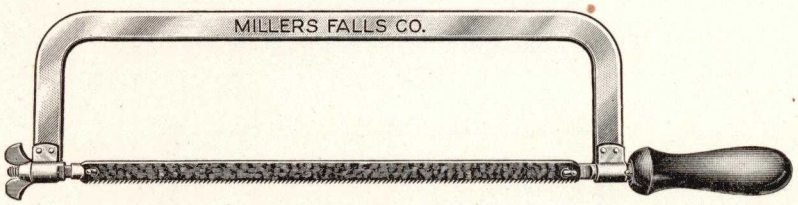
One 12 inch blade furnished with each frame.

Capacity	Depth	Stock	Weight each	Price each
12 in.	3 in.	1 x ¼ in.	2 lbs.	$2.20

Code—Score

Packed one in a pasteboard box.

Nos. 124-126

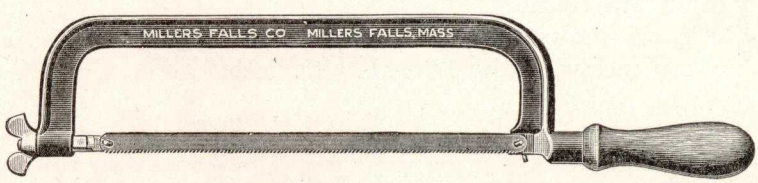


Low price solid back steel frames. Blades strained by thumb nut and faceable in four directions. Nickel plated. Stained hardwood handle. One blade furnished with each frame.

	Capacity	Depth	Stock	Weight each	Price each	*Code*
No. 124	8 in.	3⅛ in.	5/32 x 11/16 in.	14 oz.	$ .90	*Scot*
No. 125	10 in.	3⅛ in.	5/32 x 11/16 in.	1 lb.	1.00	*Scour*
No. 126	12 in.	3⅛ in.	5/32 x 11/16 in.	1 lb., 3 oz.	1.10	*Scow*

Packed one in a pasteboard box.

Nos. 4A, 4B, 4C and 4D



Cast iron frames, black enameled. Stained hardwood handle.

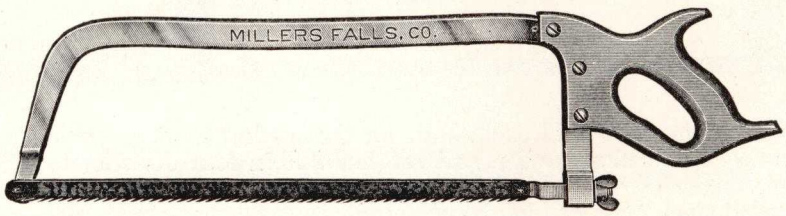
Blades strained by thumb nut and faceable in four directions.

No blade furnished.

	Capacity	Depth	Weight ½ dozen	Price each	*Code*
No. 4A	8 in.	2¼ in.	6¼ lbs.	$.50	*Scribe*
No. 4B	9 in.	2¼ in.	6¾ lbs.	.55	*Scrip*
No. 4C	10 in.	2¼ in.	7½ lbs.	.60	*Scroll*
No. 4D	12 in.	2¼ in.	8¾ lbs.	.65	*Scud*

Packed one-half dozen in a pasteboard box.

Butcher Saw Frame No. 2

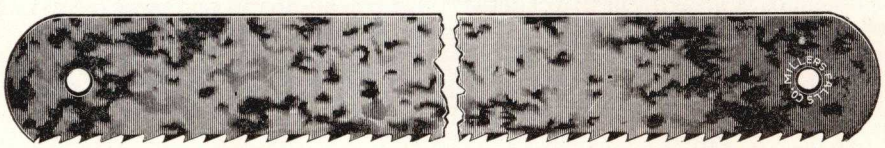


A strong, well made frame of good proportions and correct balance. Frame is of special crucible steel, polished. Handle is of beech, edges are polished. Offset stud brings saw to center of frame. One blade furnished with each frame.

Capacity	18 in.	20 in.	22 in.	24 in.	26 in.
Weight (⅓ dozen)	10 lbs.	11 lbs.	11¾ lbs.	12½ lbs.	13¼ lbs.
Price each	$2.80	2.90	3.25	3.35	3.45
Code	*Septum*	*Sequel*	*Serf*	*Serrate*	*Setter*

Packed one-third dozen in a pasteboard box.

"Economy" Butcher Saw Blades



None but the finest quality steel is used in the making of these blades. Utmost care is given to the hardening and tempering. Because of the thoroughness with which they are made, they will outcut an ordinary blade three to one.

Unless otherwise specified saws furnished 11/16 wide with 9½ teeth to the inch.

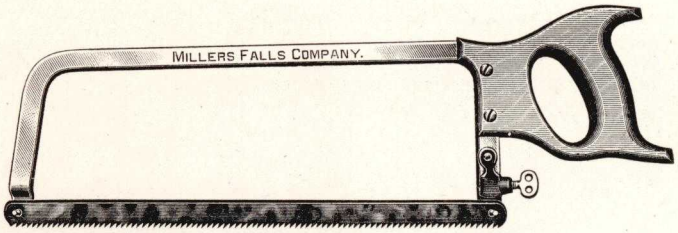
Furnished to order ½ inch wide with 14 teeth to the inch.

Length	18 in.	20 in.	22 in.	24 in.	26 in.
Weight (½ gross) 11/16 in.	5½ lbs.	6 lbs.	6½ lbs.	7 lbs.	7½ lbs.
Weight (½ gross) ½ in.	4 lbs.	4½ lbs.	5 lbs.	5½ lbs.	
Price per dozen	$1.90	2.00	2.15	2.25	2.35
Code	*Senary*	*Senate*	*Senior*	*Senna*	*Sepoy*

Packed one-half gross in pasteboard box.

Kitchen Saw

No. 347



A meat saw made especially for home use. Frame is of flat steel, polished. Handle is of beech wood and is securely fastened to frame. Blade strained by thumb nut.

Depth under back 4½ inches. Capacity 14 inch blades.

Weight (½ dozen) 6 lbs. Price each, with one blade, $1.10

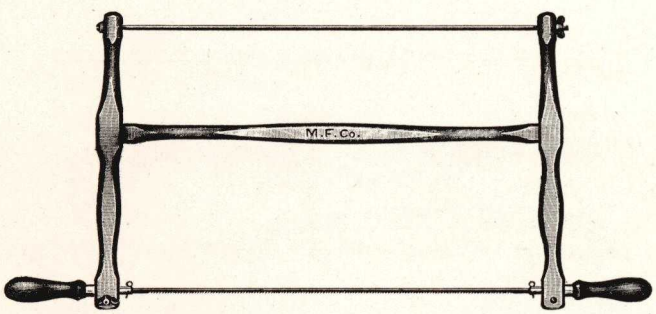
Code—Sedge

Price of blades, per dozen, $1.75

Packed one-half dozen in a pasteboard box.

Turning Saw Frame

No. 357



This frame is made of birch wood, which is particularly adapted for web saws because it is light, yet strong. Blades held by steel pins, strained by thumb nut. Friction on handles regulated by screws. Steel tension rod. Handles stained. Depth 7¼ inches. One blade furnished with each frame.

Capacity	14 in.	18 in.	24 in.
Weight each	1 lb., 6 oz.	1 lb., 10 oz.	1 lb., 14 oz.
Price each	$1.75	1.85	2.05
Code	*Shag*	*Shah*	*Shard*

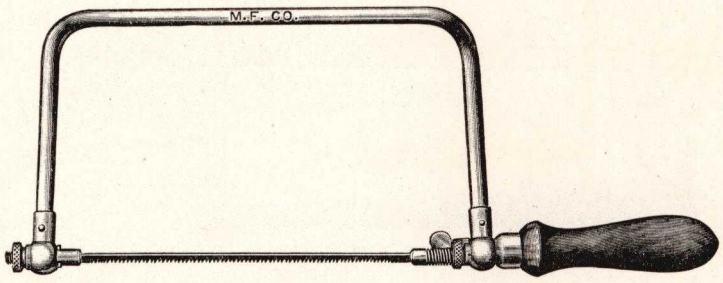
Packed one in a pasteboard box.

Turning Saw Blades

Length	14 in.	18 in.	24 in.
Width	3/16 in.	3/16 in.	3/16 in.
Weight per dozen	5 oz.	6 oz.	9 oz.
Price per dozen	$3.30	4.15	5.75
Code	*Shaggy*	*Shake*	*Shanghai*

Coping Saws

No. 42



This is our most improved frame and is unsurpassed for ease of operation and convenience in sawing under all conditions.

Ball bearings located under the outer head permit free action of the blade and insure its constant alignment. The frame can be set to swing free regardless of the direction the blade takes in sawing. A circle can be cut out without stopping to adjust it.

By means of locking devices at both ends of the blade, it can be locked rigid in the frame facing in any one of four directions. Three No. 60 blades with each frame.

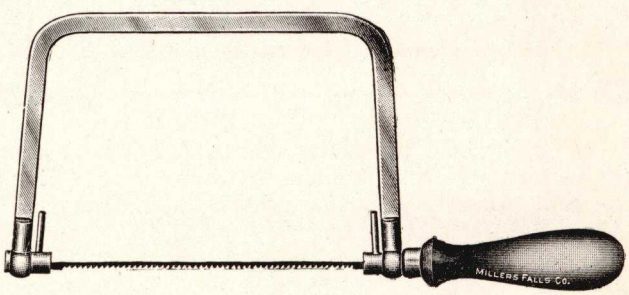
Frame of heavy steel wire, polished and nickel plated. Cocobolo handle.

Depth 4⅛ inches. Weight (¼ dozen) 1¼ lbs. Price each, $1.80

Code—Sibyl

Packed one-fourth dozen in a pasteboard box.

No. 43



This is a rigid, durable frame, made of stiff, flat spring steel. Blade is controlled by pins in studs at either end, making it unnecessary to remove blade from frame when it is desired to change direction of cut. Blades are strained by turning handle, and can be locked at any angle by turning handle against frame clamp. One No. 65 blade furnished with each frame.

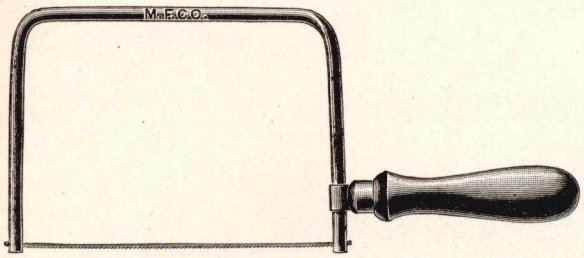
Nickeled metal parts. Stained hardwood handle.

Depth 4¾ inches. Weight (½ dozen) 3 lbs. Price each, $1.00

Code—Signet

Packed one-half dozen in a pasteboard box.

Coping Saws



No. 40

This frame is smaller and less expensive than Nos. 42 and 43.

Frame is of steel wire, nickeled. Handle is stained hardwood and is securely clamped to the frame. One dozen No. 50 blades furnished with each frame.

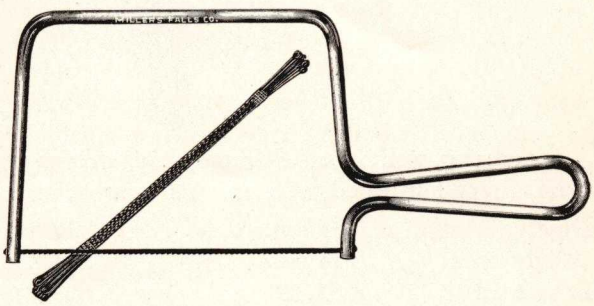
Depth 3¾ inches. Weight (per dozen), 4 lbs. Price each, $.65

Code—Silica

Packed one dozen in a pasteboard box.

No. 44

This is a low priced, yet serviceable frame. Made entirely of stiff wire stock, ¼ inch in diameter, and nickeled overall. Blades are faceable in four directions. One dozen No. 50 blades furnished with each frame.



Depth 4 inches. Weight (½ dozen), 2 lbs. Price each, $.35

Code—Simple

Packed one-half dozen in a pasteboard box.

Coping Saw Blades

No. 50



Loop, or turned ends, pattern. For use with Nos. 40 and 44 frames.

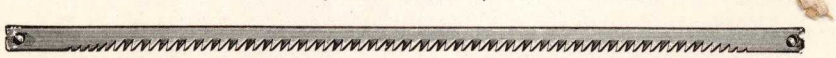
Dimensions 6 x 1/16 inches. Weight per gross, 6 oz. Price per gross, $2.40

Code—Sinew

Packed one dozen in an envelope, also in boxes of five gross, each gross separately wired.

Nos. 60 and 65

(Pin Pattern)

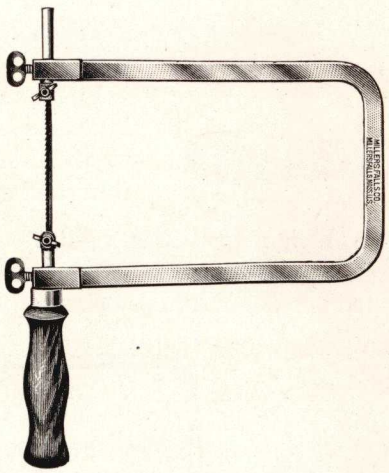


These blades cut faster and straighter, and will outwear the finer toothed blades. Made of spring tempered steel. Pins solidly held. For use with frames Nos. 42 and 43.

	No. 60	No. 65
Dimensions	6 x 3/32 in.	6½ x 3/32 in.
Weight per gross	9 oz.	11 oz.
Price per gross	$5.25	$5.25
Code	*Sire*	*Siskin*

Packed one dozen in an envelope.

Fret Saw Frame
No. 367

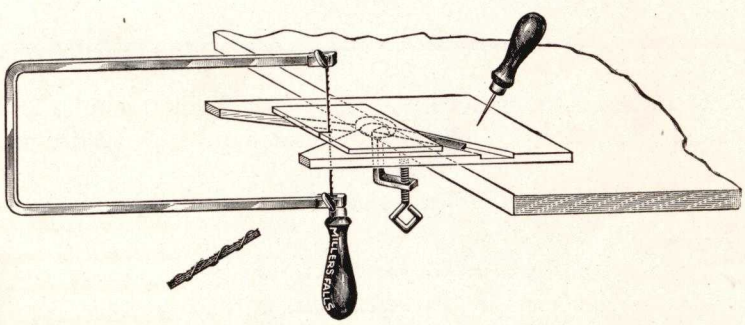


A strong, well balanced frame, made of high grade spring steel. Frame is polished and nickeled; handle is of hardwood, stained. Parts are interchangeable.

Depth	10 in.	12 in.	14 in.	16 in.
Weight each	14 oz.	1 lb.	1 lb., 2 oz.	1 lb., 3 oz.
Price each	$2.00	2.05	2.10	2.15
Code	*Skein*	*Slake*	*Sleek*	*Sleight*

Packed one in a pasteboard box.

Fret Saw Set
No. 427



A practical outfit containing every essential for good fret sawing. Set comprises the following articles:

12 inch nickeled spring steel frame, hardwood handle, with enameled mahogany finish.

Slotted table with clamp to adjust to bench and to furnish support close to the sawing point.

One dozen fret saw blades.
Awl.
Sheet of assorted designs.
Sheet of impression paper.

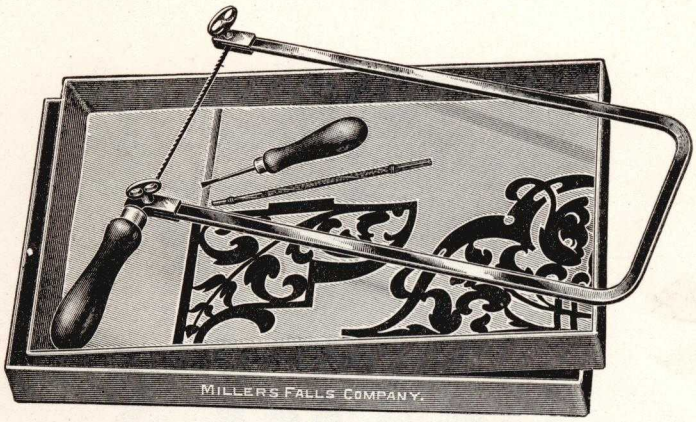
Weight each, 1¼ lbs.
Price each, $1.90

Code—Slick

Packed one set in a pasteboard box.

Fret Saw Sets

No. 2



An excellent set for amateurs. The frame is of high grade spring steel, with enameled handle, and patent clamps, which hold the blade securely. Frame has depth of 12 inches, width of 5 inches, and is highly polished and nickel plated. Other articles include twelve blades, one awl, one sheet of impression paper and three sheets of designs.

Weight each, 17 oz. *Code—Sliver* Price each, $1.60

Packed one set in a pasteboard box.

No. 1

The frame in this set is white nickeled and has japanned iron handle. Otherwise the set is identical with No. 2.

Weight each, 14 oz. *Code—Slue* Price each, $1.15

Packed one set in a pasteboard box.

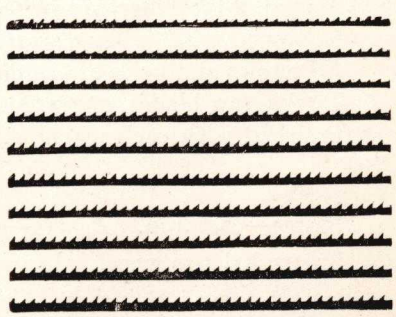
"Economy" Fret Saw Blades

Successful fret sawing depends largely upon the cutting qualities of the blades. "Economy" blades are true to their name—for they have no equal for durability. Cut fast, smooth, and are of uniform high quality.

Length overall 5 inches.

	Nos.	Price per gross.
	000	$1.65
	00	1.65
	0	1.65
	1–3	1.70
	4–6	1.80
	7–9	1.90
	10–12	2.00
Ass't.	0–6	1.70
	1–6	1.70

Code—Sluph

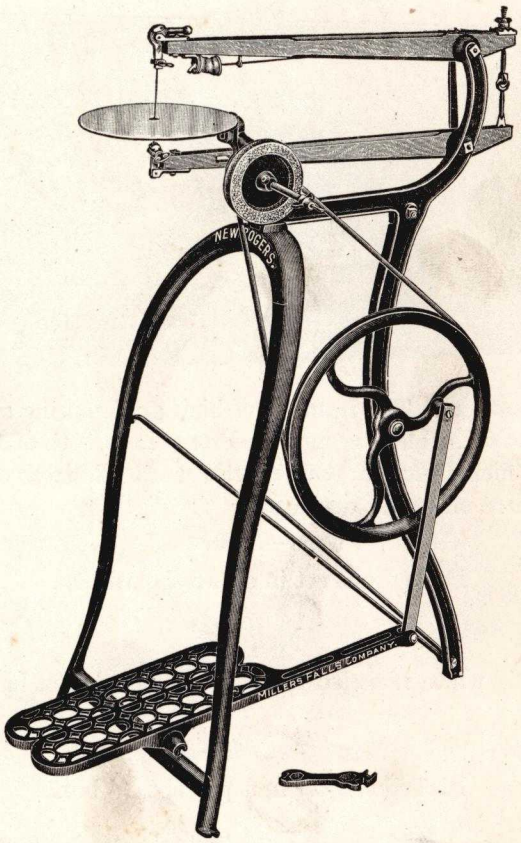


Packed one gross each size in a package and ten gross in a pasteboard box.

Also put up ten gross in a box, each gross assorted Nos. 1 to 6.

Fret Saw (Rogers)

No. 390



A fret saw machine is easier to use than a hand frame, and can be operated at greater speed. These features are of particular advantage if one is doing this work for profit.

The distinguishing feature of this machine is the design of the adjustable lever saw clamps, which minimizes blade breakage.

A jointed stretcher rod, with carefully adjusted bearings, permits free action of the arms.

Equipped with drilling attachment and automatic dust blower.

All screws and bolts are carefully fitted, so that each part of the machine is secure and strong.

Twelve saw blades, one wrench, three sheets of designs, impression paper and three drill points are furnished with each machine.

Specifications

Frame—cast iron. Arbors—steel. Arm and pitman—selected ash wood.

Emery balance wheel. Japanned tilting table. Depth of arms 18 inches.

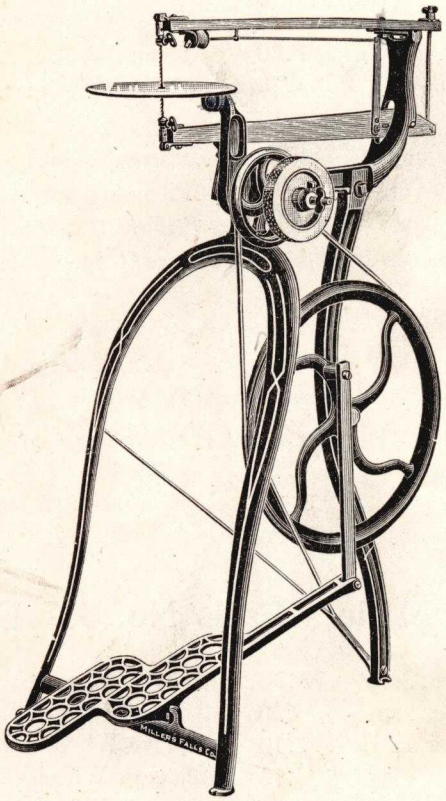
Height overall 35 inches. Capacity, up to $\frac{3}{8}$ in. wood.

Weight boxed 45 lbs., net 28 lbs. *Code—Snug* Price each, $14.00

Knocked down and packed one in a wooden case.

Millers Falls Fret Saw

No. 387



This machine is larger and heavier than No. 2, but is of the same general construction.

There are two balance wheels, one each of iron and emery, adding steadiness to the machine.

The arms swing on pivots in their supporting casting which give free action and are adjustable so that they can be kept parallel.

It can be equipped for use with small ¼ H.P. motor if desired. One-quarter inch belt should be run from motor on to small pulley. For sawing, 300–400 R.P.M., and for turning, 1000-1200 R.P.M. are recommended.

Specifications

Frame—cast iron. Arbors—steel. Arm and pitman—selected ash wood.
Emery balance wheel. Japanned tilting table. Depth of arms 18 inches.
Height overall 37 inches. Capacity, up to ⅜ inch wood.

Weight boxed 60 lbs., net 40 lbs. Price each, $18.00

Code—Smooth

Knocked down and packed one in a wooden case.

Parts of No. 390 Fret Saw (Rogers)

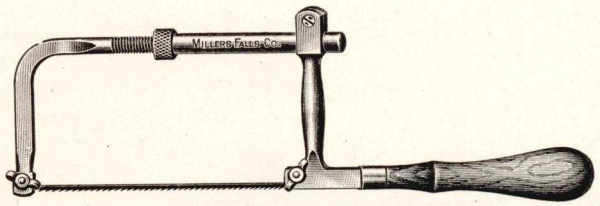
Arm Bolt	$ .10
Arm Casting	1.30
Arms, per pair	.70
Arm Spring	.10
Back Leg	1.20
Balance Wheel, Iron	.75
Balance Wheel, Emery	.50
Belt	.70
Brace	.20
Blower	.25
Crank and Spindle	.25
Crank Screw	.10
Clamps, per pair	.60
Drill Nut	.15
Drive Wheel Bolt and Nut	.10
Drive Wheel	$2.10
Front Leg	2.65
Headless Screws	.10
Locking Bolt and Nut	.10
Pitman	.10
Pitman Screw	.10
Pulley	.25
Saw Guide	.10
Stretcher	.20
Stove Bolt	.10
Table, Japanned	.90
Table Bolt	.10
Treadle	1.35
Wrench	.15

Parts of Millers Falls No. 387 Fret Saw

Arm Casting	$0.70
Arm Casting Adjustment, upper arm	.10
Arm Casting Adjustment, lower arm	.10
Arms, per pair	.70
Arm Pin	.10
Arm Bolt, 1 x 1¼ in. Round Head Car, plated	.10
Back Leg	1.60
Frame to which Arm Casting is attached	1.20
Balance Wheel	.85
Brace	.35
Brace Bolt, R H Stove 1¼ x 3/16 in	.10
Blower, complete	.25
Blower Lever	.10
Belt	.70
Crank and Drill Spindle	.30
Crank Screw	.10
Clamps, upper and lower, complete	.60
Clamp Bolts, 1⅜ x 3/16 in. R H Stove	.10
Drill Spindle, wing nut	.15
Drills, per dozen	.50
Drive Wheel	$3.35
Drive Pulley	.25
Drive Wheel Arbor, complete	.15
Emery Wheel	.50
Emery Wheel Arbor, complete	.30
Front Leg	2.65
Locking Bolt	.10
Pitman, Short	.10
Pitman Yoke Castings	.10
Pitman Bolt, R H Stove 13/16 x 3/16 in.	.10
Pitman, long	.10
Saw Guide	.10
Saw Guide Screw, ⅜ in. No. 8 Machine Screw	.10
Saw Table, Japanned	1.05
Saw Table Bolt, 1 x ¼ in. R H Carriage	.10
Stretcher Rod, complete	.20
Treadle	1.35
Treadle Caps, per pair	.10
Treadle Cap Screws, ¼ x ⅜ in. Blind Screws	.10
Treadle Bolt, 1¼ x 7/32 in. R H Stove	.10

Jeweler Saw Frames

No. 377



This frame is of better construction than the ordinary tool of this kind.

It is adjustable from 4 to 6 inches by means of a knurled nut, which locks securely against the solid portion of the back.

The upright post is firmly fastened to back by a set screw. Blades are held by thumb screws at either end.

Specifications

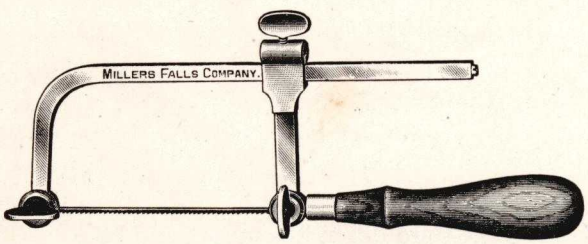
Frame—forged spring steel, nickeled. Clamps—steel. Handle—hardwood, stained.

Depth 2¼ inches. Weight (¼ dozen) 17 oz. Price each, $2.65

Code—Sherd

Packed one-fourth dozen in a pasteboard box.

Nos. 378-379



These are light, well balanced frames, less expensive than No. 377. Adjustable from 4 to 6 inches, by means of thumb screw. Blades held securely by thumb screw at either end.

Specifications

Frame—forged spring steel, nickeled.

Clamps—steel. Checked and hardened.

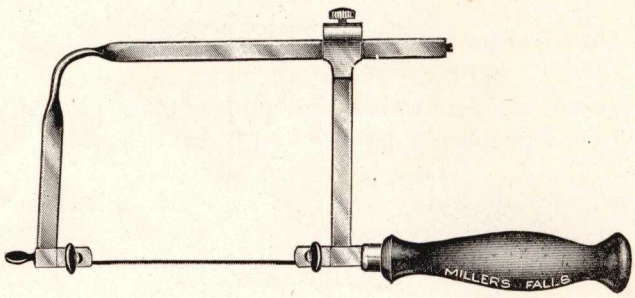
Handle—cocobolo, highly polished.

Nos	378	379
Depth	2 in.	3 in.
Weight (¼ dozen)	14 oz.	15 oz.
Price each	$1.30	1.40
Code	*Shire*	*Shoal*

Packed one-fourth dozen in a pasteboard box.

Piercing Saw Frames

Nos. 380-382



Designed especially for silversmiths and workers in arts and crafts. It is a well balanced frame and handles easily. The handle conforms to the hand and the end rests comfortably against the body, when adjusting blade into the frame.

Specifications

Frame—stiff spring steel, burnished.

Clamps—steel. Checked and hardened.

Handle—hardwood, stained and polished.

Nos	380	381	382
Depth	4 in.	5 in.	6 in.
Weight (⅓ dozen)	2⅛ lbs.	2¼ lbs.	2½ lbs.
Price each	$1.60	1.75	1.90
Code	*Shawm*	*Sheen*	*Shekel*

Packed one-third dozen in a pasteboard box.

MILLERS FALLS TOOLS SINCE 1868

GLASS CUTTERS

A glass cutter is as good as its cutting wheel—it is the most essential part of the tool.

It is for this reason that Millers Falls "Perfect Cutting" wheels are made of the choicest tool steel, carefully hardened and tempered and individually ground and honed to the proper bevel. Finally each separate wheel is tested twice before being set. This exacting care insures uniformly perfect cutting wheels.

Nine styles are shown on the pages following, and range from the inexpensive, single wheel, iron handle type, to the most improved, multiple wheel, turret head pattern.

Each one is packed in an individual carton which insures its reaching the user in perfect condition.

Glass Cutters

(Single Wheel)

No. 7



A low priced shingle wheel cutter. Handle is flattened to give easy grip. Handle is of iron, enameled red. Cutter head is polished.

Weight per dozen, ¾ lb. Price per dozen, $2.00

Code—Gabion

Packed one in a pasteboard box, and one dozen in a large box.

No. 5



This number has a heavy ball-shaped head for lightly tapping the glass after cut has been made. It will be found useful when cutting double strength or plate glass.

Otherwise same as No. 7.

Weight per dozen, 15 oz. Price per dozen, $2.10

Code—Gad

Packed one in a pasteboard box, and one dozen in a large box.

No. 1



The iron handle on this cutter is heavier and of different design than Nos. 7 and 5. The finish however, is the same.

Weight per dozen, 17 oz. Price per dozen, $2.30

Code—Gael

Packed one in a pasteboard box, and one dozen in a large box.

Wheels will cut better and last longer if dipped frequently in kerosene. Keeping entire cutter head immersed when not in use is advisable.

Glass Cutters

(Multiple Wheel)

No. 300



This multiple wheel cutter is a great convenience because as soon as a wheel becomes dull, a turn of a screw loosens the set screw and a sharp wheel is instantly in place.

The revolving turret contains six Millers Falls "Perfect Cutting" wheels, numbered as indicated in illustration.

Handle, hardwood, enameled. Steel cutter head and frame, polished and nickel plated.

Weight per dozen, ¾ lb. Price per dozen, $5.20

Code—Gala

Packed one in a pasteboard box, and one dozen in a large box.

No. 100



This cutter works on the same principle as No. 300, but the head is of different design.

Revolving turret contains seven Millers Falls "Perfect Cutting" wheels. Turret is loosened and clamped fast by a thumb screw. This screw is slotted and can be operated with a screw driver if desired. Axles in turret are controlled by a device to prevent their falling out of place while inserting new wheels.

Handle, cocobolo, polished. Steel turret and frame, polished.

Weight per dozen, 15 oz. Price per dozen, $9.00

Code—Galleon

Packed one in a pasteboard box, and one dozen in a large box.

Because of their hardness and keen edges Millers Falls "Perfect Cutting" wheels require but the lightest pressure. To much pressure flakes the glass.

Glass Cutters

(Multiple Wheel)

No. 30



A multiple wheel cutter containing four Millers Falls "Perfect Cutting" wheels in a revolving turret head. Head is loosened and clamped fast by means of a thumb screw. Four milled notches act as breakers.

Hardwood handle, highly polished. Steel cutter head is polished.

Weight per dozen, ¾ lb. Price per dozen, $7.00

Code—Gallic

Packed one in a pasteboard box, and one dozen in a large box.

(Magazine Type)

No. 25



A magazine type of cutter in which one wheel only at a time is placed in the working head. Five extra Millers Falls "Perfect Cutting" wheels and three additional axles are instantly available from the magazine in the cutter head.

Handle is of cocobolo, highly polished. Cast iron cutter head, polished and nickel plated.

Weight per dozen, 17 oz. Price per dozen, $12.25

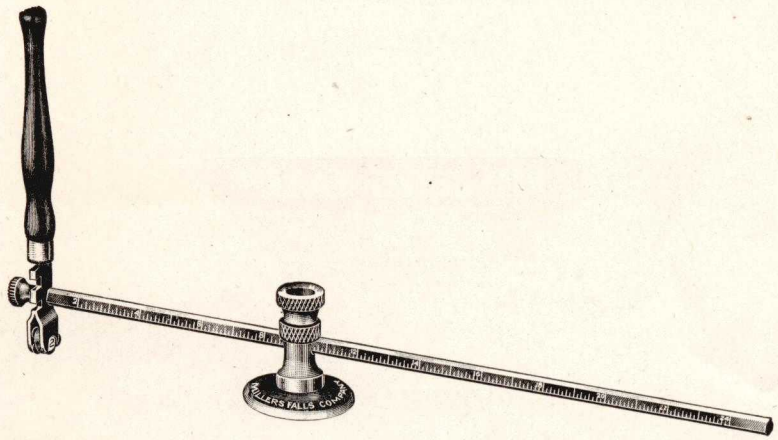
Code—Gambit

Packed one in a pasteboard box, and one dozen in a large box.

Hold the cutter between the first and second fingers, draw the wheel entirely across the glass, and break by giving a slight bend while holding the pane tightly between the thumb and first finger of each hand.

Circular Glass Cutter

No. 301



This tool serves a double purpose. With the cutter attached it will cut circles from 2 to 24 inches in diameter, accurately and quickly.

Unscrewing the knurled end nut, releases the cutter which can be used as an ordinary glass cutter.

The cutter is our regular No. 300 with revolving turret head, containing six Millers Falls "Perfect Cutting" wheels, each wheel numbered.

Sliding bar is of hexagonal steel, and is graduated by sixteenths of an inch. The standard has a cork disk inserted to prevent slipping.

Handle—hardwood, enameled mahogany finish.

Metal parts polished and nickel plated.

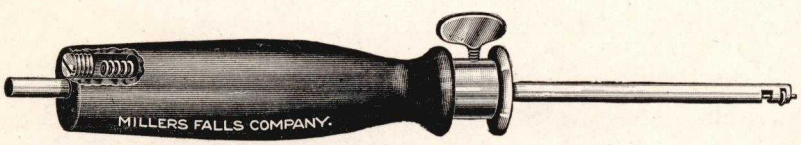
Weight each ½ lbs. Price each, $1.20

Code—Gantlet

Packed one in a pasteboard box.

Gauge Glass Cutter

No. 202



This tool is made for cutting glass tubes and has capacity up to eight inches long. Rod is easily adjustable by thumb nut. Removable axle on cutting head. Equipped with one Millers Falls "Perfect Cutting" wheel. Magazine in end of handle contains five extra wheels.

Rod is of steel, polished. Dimensions 9 x 3/16 in. Handle is of hardwood, stained and polished.

Weight (½ dozen), 1½ lbs. Price each, $.90

Code—Garland

Packed one-half dozen in a pasteboard box.

MITRE BOXES

Accuracy and durability are the chief requisites of a mitre box. Other features are of secondary importance.

Since first manufactured, these qualities in Millers Falls Langdon Mitre Boxes, have been unquestioned.

Foremost among the styles we make is the Improved Langdon Acme. This box represents the highest type of mitre box efficiency.

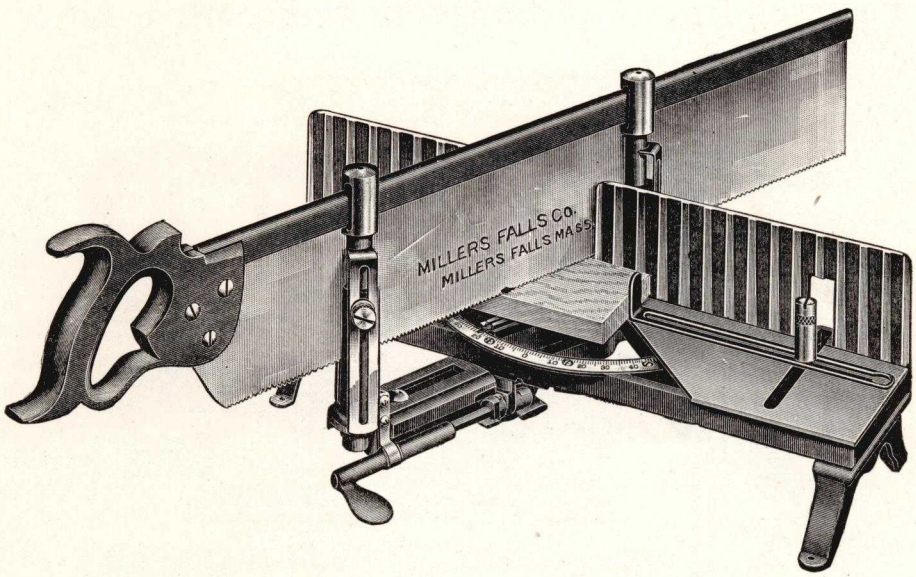
Its distinguishing features are: the extra long saw guide to give stability; automatic catch holding these guides at their highest points, releasing them instantly when desired; guides to support the work against back or for use when angles of more than 45 degrees are desired, and which are easily slid out of the way when not in use; take up to provide for wear on the screw. These and other refinements have made it the favorite mitre box with carpenters everywhere.

A number of different styles are shown in the pages following, each having its particular uses and advantages, and each one made with characteristic Millers Falls thoroughness, both in the selection of material and to every detail of manufacture.

Mitre Boxes

(Improved Langdon Acme)

Nos. 68-75



This is our most improved type of box, and has, in addition to the refinements described on the preceding page, the following features:

Thumb lever at front of box by means of which saw supports can be swung freely and locked at either a positive or any intermediate angle.

Graduated arc and index plate to show what degrees to set the saw for certain cuts.

Notched bed plate determines the positive angles most used.

Extension lever for quick acting adjustment on all except size one boxes.

Length and depth gauges.

Steel bottom boards roughened to prevent work from slipping.

Made of iron and steel castings. Main castings are enameled black.

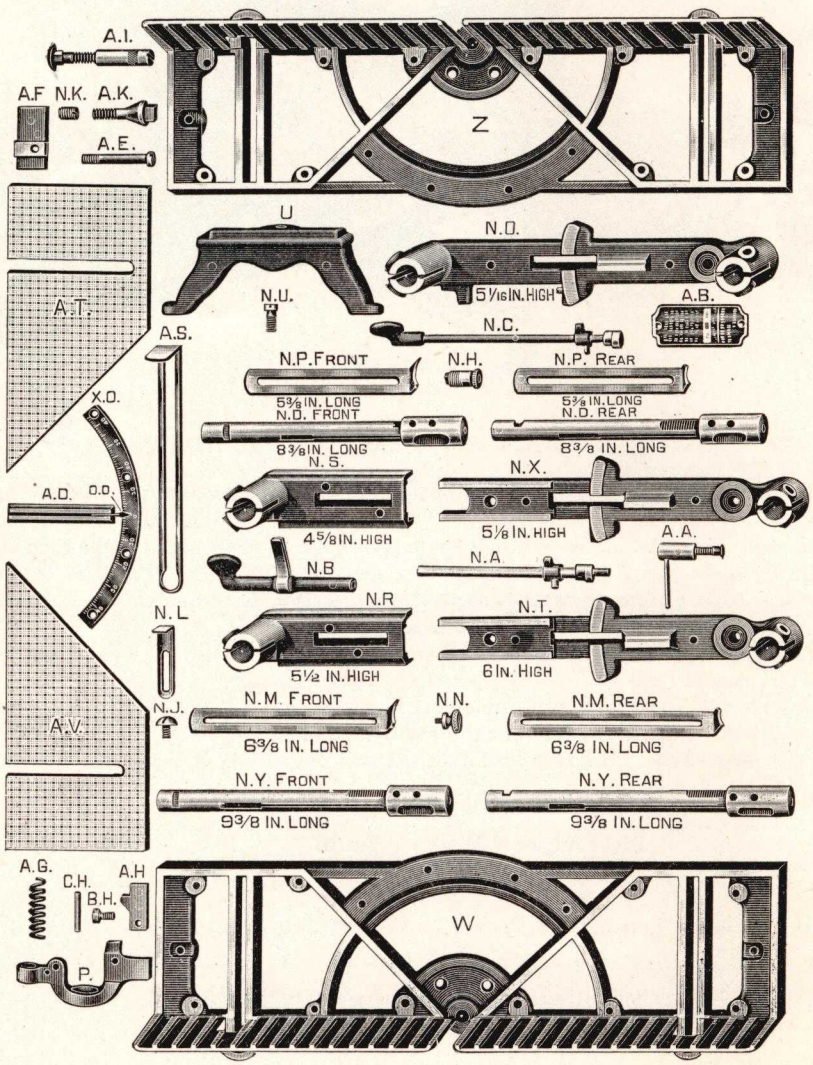
Steel bed plates enameled red. Bright parts nickel plated.

Nos.	Size	Dimensions of Saw Inches.	Capacity at Right Angles Inches.	Capacity at Mitre. Inches.	Weight Boxed. Pounds.	Weight Net. Pounds.	Code	Price
68	1	22 x 4	7½	5	34	23	*Macaw*	$18.75
69	1	24 x 4	7½	5	35	23½	*Mace*	19.50
70	1	26 x 4	7½	5	36	24	*Macula*	20.25
71	2	22 x 4	10¼	7	34	23	*Madder*	20.25
72	2	24 x 4	10¼	7	35	23½	*Mahout*	21.00
73	2	26 x 4	10¼	7	36	24	*Mator*	21.50
74	2½	28 x 5	10¼	7	37	25	*Mall*	24.25
75	2½	30 x 5	10¼	7	38	25½	*Marquis*	25.75
			BOXES WITHOUT SAWS.					
	1		7½	5	26	20	*Marshal*	$15.00
	2		10¼	7	26	21	*Mascot*	16.50
	2½		10¼	7	27	22	*Maxim*	18.50

Boxes are guaranteed accurate only when equipped with saws fitted by ourselves.

Parts of Improved Langdon Acme Mitre Boxes

Nos. 68–75



List of Parts of Improved Langdon Acme Mitre Boxes

(Nos. 68-75)

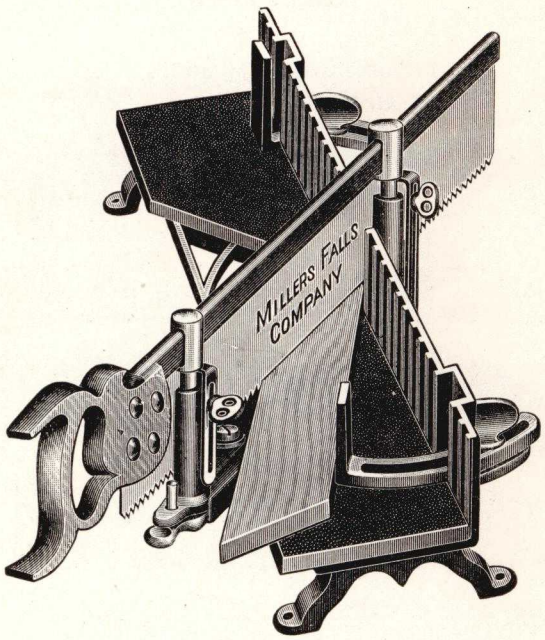
AA	Binder	for sizes 2 and 2½ box	$ .10
AB	Index Plate	" all sizes of boxes	.25
AD	Gib	" " " "	.30
AE	Gib Screw	" " " "	.10
AF	Binding Strap	" " " "	.15
AG	Spring	" " " "	.10
AH	Stop Lever Strap	" " " "	.10
AI	Stock Rest	" " " "	.30
AK	King Bolt	" " " "	.15
AS	Length Gauge	" " " "	.20
AT	Right Hand Bottom Board	" " " "	.75
AV	Left Hand Bottom Board	" " " "	.75
BH	Stop Lever Strap Screw	" " " "	.10
CH	Stop Lever Pin	" " " "	.10
NA	Stop Lever Rod	" sizes 2 and 2½ box	.35
NB	Thumb Lever	" all sizes of boxes	.25
NC	Thumb Stop Lever	" size 1 box	.50
ND	Saw Guide Front and Rear	" sizes 1 and 2 box	.90
NH	Elevator	" all sizes of boxes	.50
NJ	Guide Stop Screw	" " " "	.10
NK	King Bolt Stop Screw	" " " "	.10
NL	Guide Stop	" " " "	.10
NM	Stop Gauge Front and Rear	" size 2½ box	.15
NN	Stop Gauge Thumb Screw	" all sizes of boxes	.20
NO	Swinging Lever	" size 1 box	2.60
NP	Stop Gauge Front and Rear	" sizes 1 and 2 box	.10
NR	Sliding Front Post	" size 2½ box	1.20
NS	Sliding Front Post	" " 2 box	1.10
NT	Swinging Lever	" " 2½ box	2.45
NU	Leg Screw	" all sizes of boxes	.10
NX	Swinging Lever	" size 2 box	2.45
NY	Saw Guide Front and Rear	" " 2½ box	.95
OO	Indicator	" all sizes or boxes	.10
P	Stop Lever	" " " "	.25
U	Leg	" " " "	.35
W	Bed and Back	" size 2½ box	6.15
XO	Graduated Arc	" all sizes of boxes	.55
Z	Bed and Back	" sizes 1 and 2 box	6.15

Parts NO, P, NR, NS, NT, U, W, NX and Z have corresponding letters cast in them, so, if in doubt, reference may be made to the castings.

Mitre Boxes

(New Langdon Improved)

Nos. 26–35



While these boxes have not all the refinements of the Improved Langdon Acme, they have every feature essential to a complete mitre box.

Saw supports can be quickly swung and clamped at any angle from 45° to 90° either to the right or to the left. Angles most in use are determined by notches cut into baseplate.

Circular arms permit cutting any angle from 45° to 90°—and also at any angle from 15° to 90°, on 2½ inch stock.

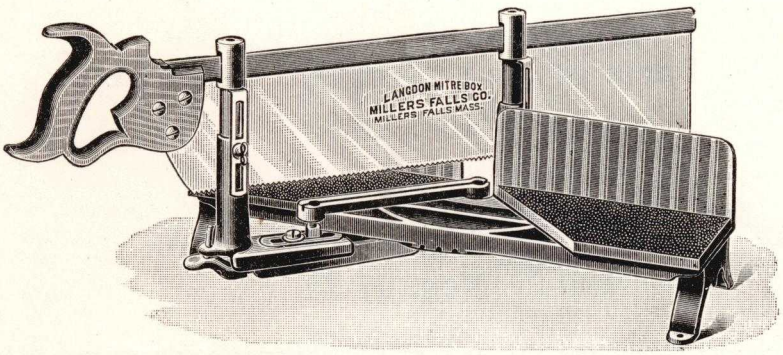
Have depth gauge, and gib to support work.

Nos.	Size	Dimensions of Saw Inches.	Capacity at Right Angles Inches.	Capacity at Mitre. Inches.	Weight Boxed. Pounds.	Weight Net. Pounds.	Code	Price
26	1	18 x 4	6¾	4½	25	16	*Mead*	$14.75
27	1	20 x 4	6¾	4½	26	17	*Median*	15.75
28	1	22 x 4	6¾	4½	27	17½	*Medlar*	16.50
29	1	24 x 4	6¾	4½	28	18	*Melton*	17.25
30	1	26 x 4	6¾	4½	29	19	*Mercer*	18.00
31	2	22 x 4	9⅜	6⅜	29	19½	*Merle*	18.00
32	2	24 x 4	9⅜	6⅜	29½	20	*Merlon*	19.00
33	2	26 x 4	9⅜	6⅜	30	20½	*Meter*	19.75
34	2½	28 x 5	9⅜	6⅜	34	22	*Metric*	22.00
35	2½	30 x 5	9⅜	6⅜	35	22½	*Mettle*	23.00
			BOXES WITHOUT SAWS.					
	1		6¾	4½	21	13	*Mewt*	$12.25
	2		9⅜	6⅜	22½	14½	*Mews*	13.25
	2½		9⅜	6⅜	26½	18½	*Mezzo*	15.75

Mitre Boxes

(New Langdon)

Nos. 17–25)



These boxes are identical with Nos. 26 and 35 except that they are without the circular arms. Their capacity, therefore is from 45° to 90° only.

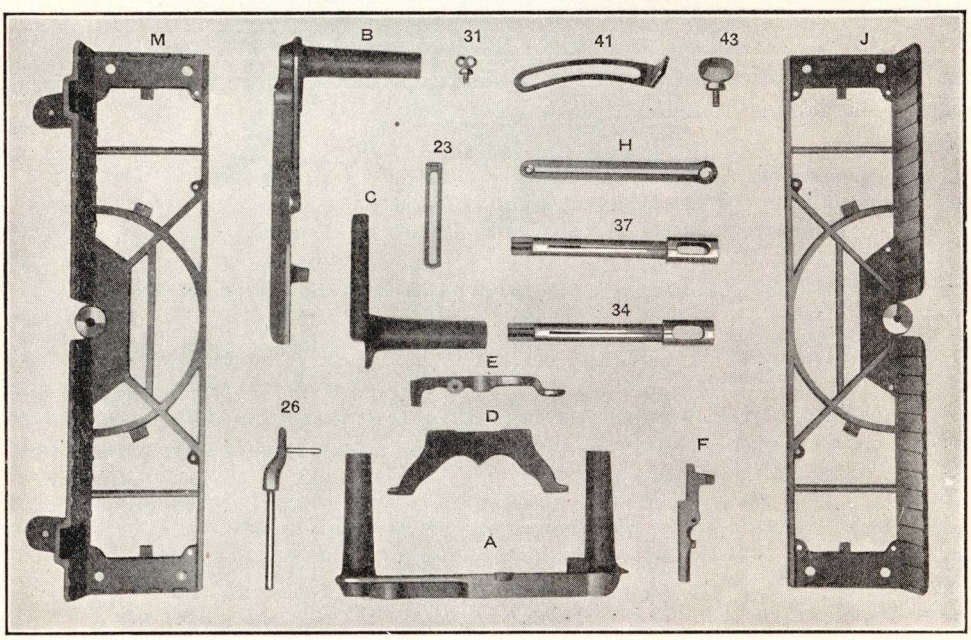
Nos.	Size	Dimensions of Saw Inches.	Capacity at Right Angles. Inches.	Capacity at Mitre. Inches.	Weight Boxed. Pounds.	Weight Net. Pounds.	Code.	Price.
17	1	18 x 4	6¾	4½	24	14	*Mien*	$13.25
18	1	20 x 4	6¾	4½	25	14	*Mikado*	14.00
19	1	22 x 4	6¾	4½	26	14½	*Miller*	14.75
20	1	24 x 4	6¾	4½	26½	14½	*Mime*	15.50
21	1	26 x 4	6¾	4½	27	15	*Mimosa*	16.50
22	2	22 x 4	9⅜	6⅜	27¼	15½	*Minerat*	16.50
23	2	24 x 4	9⅜	6⅜	27½	16	*Minim*	17.25
24	2	26 x 4	9⅜	6⅜	28	12½	*Minion*	18.00
25	2½	28 x 5	9⅜	6⅜	30½	18	*Minotaur*	20.50
			BOXES WITHOUT SAWS.					
	1		6¾	4½	20½	12½	*Mint*	$10.50
	2		9⅜	6⅜	22	14	*Minuet*	11.75
	2½		9⅜	6⅜	26	18	*Mirk*	14.25

Important

The length of a mitre box saw, commonly called a back saw, is determined by the length of the blade, not the length of the cutting edge. Saws furnished with our boxes are all clipped off rounding at the butt to prevent pricking the thumb when swinging the lever from side to side. This cuts off about 1½ inches of the cutting edge of the saw, but is really no loss, as the part cut off would come directly under the handle, and would be of no practical use.

These saws, therefore, seem to measure nearly two inches shorter than they really are. In measuring your saw be careful to measure the entire length of blade.

Parts of New Langdon Improved Nos. 26-35 and New Langdon Mitre Boxes Nos. 17-25



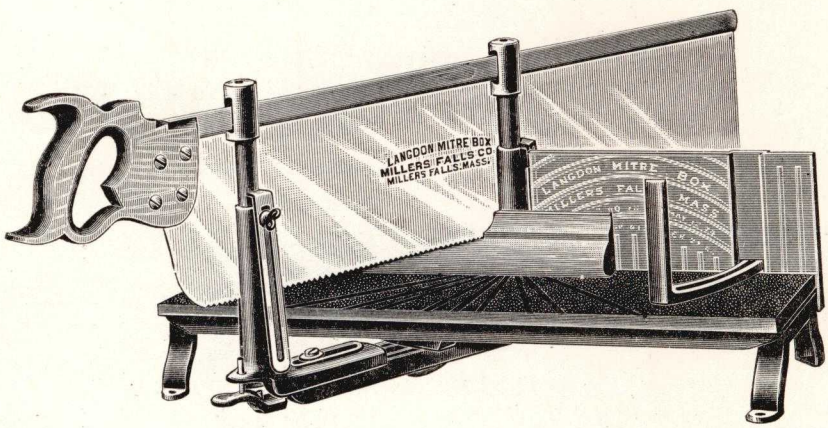
Parts of New Langdon Improved Nos. 26-35 and New Langdon Mitre Boxes Nos. 17-25

Part No.	*Used on* New Langdon	New Langdon Imp.	*Name of Part*	*Price*
A	Size 1	Size 1	Swinging Lever	$2.10
B	" 2	" 2	Swinging Lever	1.20
C	" 2	" 2	Sliding Post	1.05
D	" 1–2–2½	" 1–2–2½	Legs	.25
E	" 1	" 1	Stop Lever	.20
F	" 2–2½	" 2–2½	Stop Lever	.25
H	" 1–2–2½	" 1–2–2½	Gib	.45
K	" 2½	" 2½	Sliding Post	1.15
J	" 1–2	"	Bed and Back	5.20
Y	" 2½	"	Bed and Back	5.20
M	"	" 1–2	Bed and Back	5.20
N	"	" 2½	Bed and Back	5.20
L	" 2½	" 2½	Swinging Lever	1.75
23	" 1–2–2½	" 1–2–2½	Stop Gauge—Front	.10
26	" 2–2½	" 2–2½	Thumb Lever, complete	.25
31	" 1–2–2½	" 1–2–2½	Thumb Screw	.10
32	" 1–2	" 1–2	Stop Gauge—Rear	.10
33	" 2½	" 2½	Stop Gauge—Rear	.10
34	" 1	" 1	Front Guide	.85
35	" 2	" 2	Front Guide	.85
36	" 2½	" 2½	Front Guide	.85
37	" 1–2	" 1–2	Rear Guide	.85
38	" 2½	" 2½	Rear Guide	.85
39	" 1–2	" 1–2	Bottom Boards (Right or Left)	.25
40	" 2½	" 2½	Bottom Boards (Right or Left)	.25
41	"	" 1–2	Circular Arms (Right or Left)	.25
42	"	" 2½	Circular Arms (Right or Left)	.25
43	"	" 1–2–2½	Circular Arm Thumb Screws	.15
44	" 1	" 1	Thumb Lever	.25

Mitre Boxes

(Langdon Size 3)

Nos. 15–16



These boxes are built especially for work on wide and deep material. For this reason are equipped with a 6 inch saw.

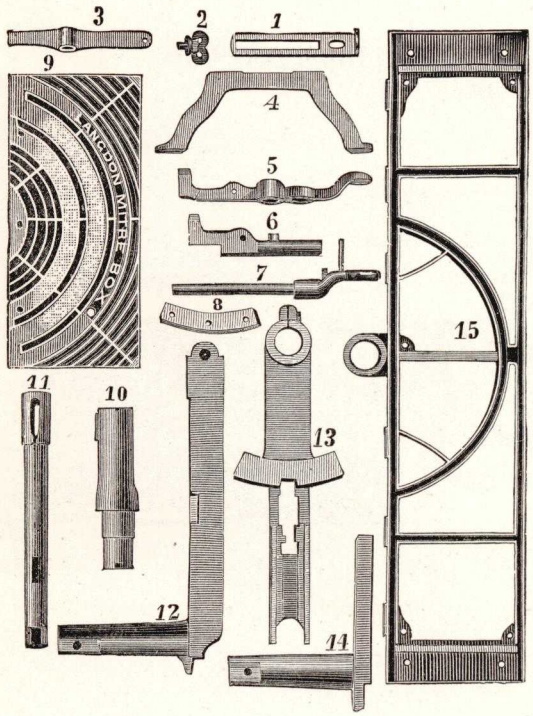
Have same circular arms as Nos. 26 to 35, which permit cutting at any angle from 15° to 90° on 2½ inch stock, in addition to the regular capacity of 45° to 90°. Notches are cut in baseplate at angles most used.

Nos.	15	16
Dimensions of saw	28 x 6 in.	30 x 6 in.
Capacity at right angles	12¾ in.	12¾ in.
Capacity at mitre	8⅜ in.	8⅜ in.
Weight, boxed	50 lbs.	53 lbs.
Weight, net	39 lbs.	40 lbs.
Price	$28.50	29.25
Code	*Moat*	*Mobile*

Price, without saw, $21.50.

Parts of Langdon Mitre Boxes

Nos. 15 and 16. Size 3.

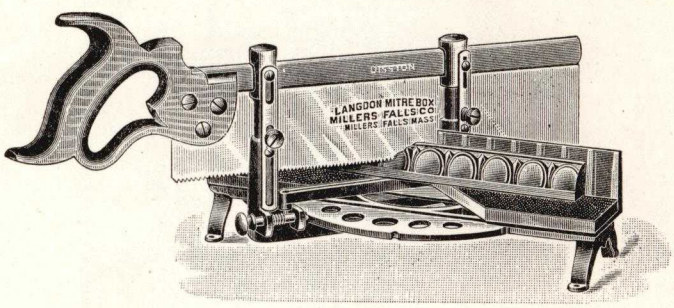


Part No.	*Name of Parts*	*Price each*
1	Stop Gauge	$0.20
2	Thumb Screw	.20
3	Back Lever	.30
4	Legs	.35
5	Stop Lever (Old Style Obsolete)	...
6	Stop Lever	.45
7	Thumb Lever	.35
8	Gib	.30
9	Back	2.25
10	Back Post	1.90
11	Saw Guides	.80
12	Swinging Lever (Old Style Obsolete)	...
13	Swinging Lever	3.10
14	Sliding Post	3.20
15	Bed	4.75
	Bottom Board	1.00
	Spiral Spring	.10
	Screws	.10
	Lever Pins	.10
	Set Screw	.10

Mitre Boxes

(Langdon)

Nos. 15½ and 16½



These are small boxes, easily portable, and are especially adapted to cutting mouldings and other light work.

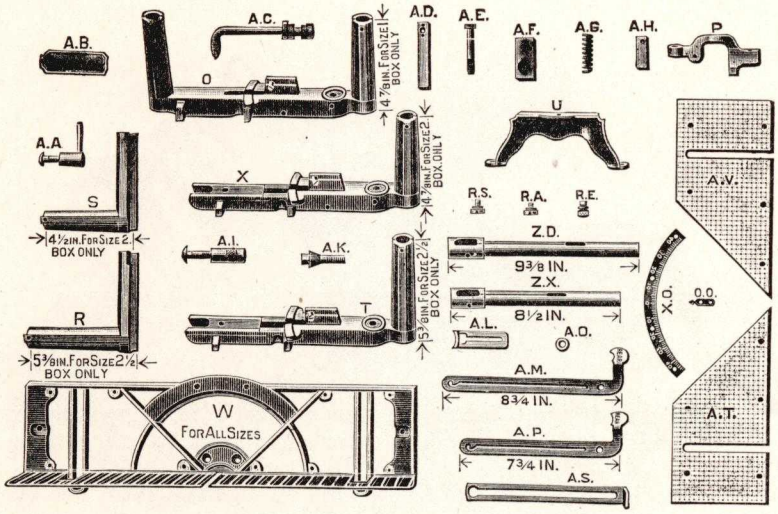
Saw supports can be quickly swung and clamped at any angle, from 45° to 90° either to the right or to the left. Notches are cut in baseplate at angles most used.

No. 16½ box does not have the slotted elevators shown in illustration.

Nos.	15½	16½
Size	C	B
Dimensions of saw	16 x 2½ in.	16 x 2 in.
Capacity at right angles	4½ in.	4½ in.
Capacity at mitre	3 in.	3 in.
Weight, boxed	14 lbs.	11 lbs.
Weight, net	8 lbs.	7 lbs.
Price	$11.75	10.25
Code	*Model*	*Modicum*

Prices of boxes without saws: size C, $7.00; size B, $6.25.

Parts for Old Style Langdon Acme Mitre Box

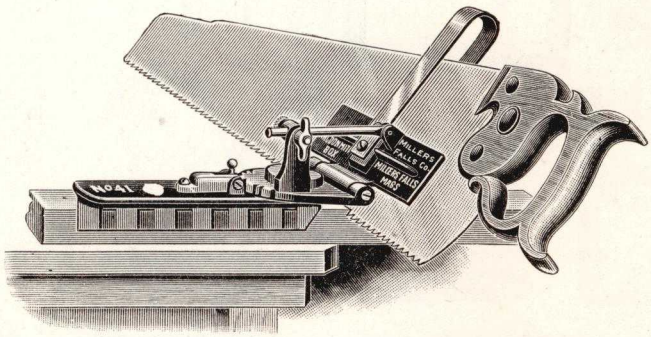


Part No.	*Name of Part*		*Price, each*
A A	Binder	for sizes 2 and 2½ box	$0.10
A B	Index Plate	" all sizes of boxes	.25
A C	Thumb Stop Lever	" " " "	.50
A D	Gib	" " " "	.30
A E	Gib Screw	" " " "	.10
A F	Binding Strap	" " " "	.15
A G	Spring	" " " "	.10
A H	Stop Lever Strap	" " " "	.10
A I	Stock Rest	" " " "	.30
A K	King Bolt	" " " "	.15
A L	Guide Stop	" " " "	.10
A M	Elevator Bar	" size 2½ box	.30
A O	Washer	" all sizes of boxes	.10
A P	Elevator Bar	" sizes 1 and 2 box	.30
A S	Length Gauge	" all sizes of boxes	.20
A T	Right Hand Bottom Board	" " " "	.75
A V	Left Hand Bottom Board	" " " "	.75
O	Swinging Lever	" size 1 box	2.60
O O	Indicator	" all sizes of boxes	.10
P	Stop Lever	" " " "	.25
R	Sliding Front Post	" size 2½ box	1.15
R A	Guide Stop Screw—Rear	" all sizes of boxes	.10
R E	Elevator Stop Screw	" " " "	.10
R S	Guide Stop Screw—Front	" sizes 2 and 2½ box	.10
S	Sliding Front Post	" size 2 box	1.10
T	Swinging Lever	" size 2½ box	2.45
U	Leg	" all sizes of boxes	.35
W	Bed and Back	" size 2½ box	6.15
X	Swinging Lever	" size 2 box	2.45
X O	Graduated Arc	" all sizes of boxes	.50
Z D	Saw Guide	" size 2½ box	.90
Z X	Saw Guide	" sizes 1 and 2 box	.90
Z	Bed and Back	" " " "	6.25

Parts O, P, R, S, T, U, W and X, have corresponding letters cast in them, so, if in doubt, reference may be made to the castings.

Mitre Boxes

No. 41



This is a small, light tool designed for use in places where it is impracticable to use the larger boxes. It is especially handy for sawing moulding, cornices, etc., when working at the top of a ladder.

The saw clamp is attached to the rest of the tool by a hinge which permits the saw to be tilted for cutting a wide range of bevels. This is of particular use in jointing floors.

The bedplate has a double shelf or rest, permitting the cut to be made at an angle either to the right or to the left.

Notches are cut into the shifting arc to determine the angles ordinarily used.

The saw guide holds securely either back or panel saws.

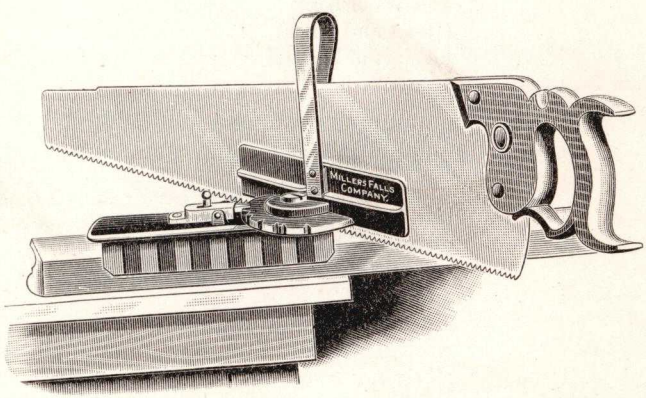
The tool is made of iron and steel, with bright parts nickeled and other parts japanned black.

Weight each, 2½ lbs. Price each, $4.75

Code—Mod fied

Packed two in a pasteboard box.

No. 40



In this tool the saw clamp is solid to the rest of the tool, instead of hinged, so the saw cannot be tilted to cut a bevel. Otherwise it is identical with No. 41.

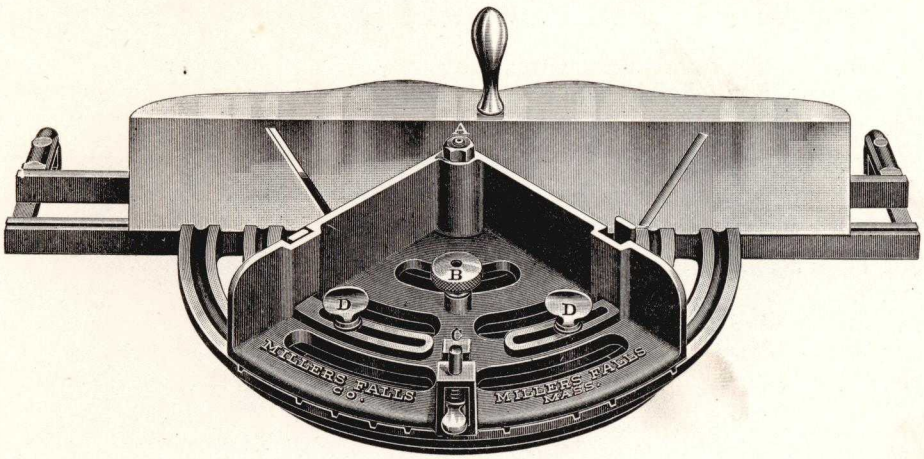
Weight each, 2¼ lbs. Price each, $3.90

Code—Mongol

Packed one in a pasteboard box.

Mitre Planer

No. 3½



A machine used extensively for picture framing.

The principal parts are: a semicircular bedplate with a runway at the rear; a plane sliding upon this runway; and a quadrant swinging to right to left upon the bedplate with a point A, shown in illustration, as a pivot.

The quadrant is clamped by catch C, shown in illustration, in notches in the bedplate at the angles most in use and at intermediate points by thumb screw B, also shown in illustration. When set in the middle of the bedplate, the side elevations of the quadrant form a perfect mitre for four-sided work.

Has adjustable arms, clamped with thumb screw DD, shown in illustration, of especial use in enabling one to finish the ends and angles on curved work with exactness. In preparing pieces for circular or oval work, frames pulleys, emery wheels, circular patterns, etc., it is necessary to plane the ends of the various segments at varying angles. In planing these the point of the quadrant near the plane and the adjustable guides form the rest required for accurate work.

Surfaces are smoothly machined. Graduations accurately cut. Made entirely of iron, enameled black except bright parts polished.

Size 3½. Width of knives, 3½ inches.

Weight boxed, 73 lbs. Weight net, 53 lbs. Price each, $62.00

Code—Mural

Extra plane knives, per pair, 3½ in., $15.00.

Levels

Nos. 23–26



These levels are of the double plumb type, made entirely of iron. They are more compact, more durable and less expensive than the better grade of wooden levels.

Thorough inspection is made after each operation and the vials are tested both before and after setting. Surfaces are accurately machined and smoothly polished. Vials are protected with a nickeled plate. All parts except top and base japanned black.

They are light, strong, and can be depended upon for absolute accuracy.

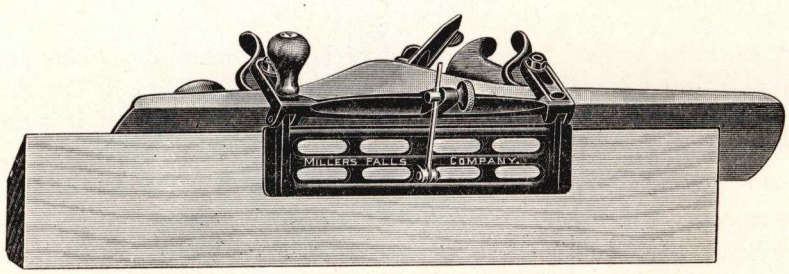
Nos.	23	24	25	26
Length	6 in.	12 in.	18 in.	24 in.
Weight each	14 oz.	2 lbs.	3⅛ lbs.	4½ lbs.
Price each	$1.90	2.75	3.25	3.75
Code	*Lambent*	*Lamina*	*Lascar*	*Latish*

Packed one in a pasteboard box.

Ground glasses furnished at additional cost of $.75 per glass.

Jointer Gauge

No. 88



This tool is easily and quickly attached to iron or wood planes, and enables the operator to accurately plane bevels of any desired angle, or to make even joints without using a try square or bevel.

Attached to iron planes of all sizes by adjustable cams; to wood planes by ordinary wood screws.

Made entirely of iron. Enameled black overall, except flat surface polished and nickel plated.

Length of guide 9 inches. Weight each, 2¼ lbs. Price each, $1.95

Code—Woad

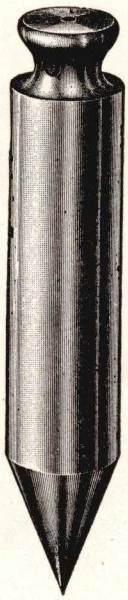
Packed one in a pasteboard box.

Bench Hook



No. 56

Plumb Bobs



Nos. 1-4

No. 56

A strong, rigid tool easily inserted in any bench. Has four faces, adjustable to any desired position and height by means of set screw in center.

Steel hook, nickeled. Inner surface of socket enameled red. Edge of socket polished.

Upper part of socket 2 inch and lower part 1 inch in diameter.

Weight (½ dozen), 4 lbs. Price each, $1.25

Code—Wye

Packed one-half dozen in a pasteboard box.

Nos. 1-4

These plumb bobs are machine turned from cold rolled steel. The points are sharpened and hardened; the round surfaces smoothly finished. Hang true and insure positive accuracy in plumbing and leveling.

Nos.	1	2	3	4
Length	2¾ in.	3½ in.	4 in.	5 in.
Weight (½ dozen)	1⅛ lbs.	2¼ lbs.	3 lbs.	3½ lbs.
Price each	$.25	.40	.55	.75
Code	*Edition*	*Educe*	*Effect*	*Effete*

Packed one-half dozen in a pasteboard box.

Spoke Shaves

No. 2



This tool has an advantage over the ordinary spoke shave in that either handle is detachable, permitting the operator to work in narrow places.

The throat regulator is quickly adjustable and can be turned about to present four different faces to the knife, one flat, two oval or convex, and one concave. Either wide or narrow throat can be had.

Knife is adjustable by means of set screws, is of high grade steel, carefully tempered and sharpened.

Handles are cocobolo, highly polished. Metal parts are polished and nickel plated.

Length of blade, 2 inch.

Length overall 11 inches. Weight (½ dozen), 3½ lbs. Price each, $2.70

Code—Writhe

Packed one-half dozen in a pasteboard box.

No. 1



This tool is designed especially for working in small circles. The knife is so pitched that it cuts instead of scraping the grain of the wood.

Can be used in cramped places to advantage as either handle is detachable.

Knife is of high grade steel, carefully tempered and has keen cutting edge.

Handles are of cocobolo, highly polished. Metal parts, polished and nickel plated.

Length of blade 2 inch.

Length overall 10 inches. Weight (½ dozen), 2¾ lbs Price each, $1.50

Code—Wrought

Packed one-half dozen in a pasteboard box.

NAIL SETS AND PUNCHES

In August, 1920, we acquired control of the West Haven Mfg. Co. of West Haven, Conn., which in addition to "Universal" hack saw blades and frames, made a superior line of nail sets, punches and other small tools.

The accuracy, strength, and durability of these tools is the result of the care used in the selection of the steel from which they are made, the exacting processes of hardening and tempering, and the thorough inspection given to each tool.

The fact that our nail sets are machined enables us to produce *perfect* cups and points, an advantage over the average nail set cup which is slightly elliptical and therefore liable to chip off on one side. Also all our points are made over size with a bevel down to the point. For these reasons we claim to have the strongest and most accurate point of any nail set made.

The centers of the nail sets and punches are heavily knurled and afford a firm grip; the heads and points are machine finished and therefore absolutely accurate and true.

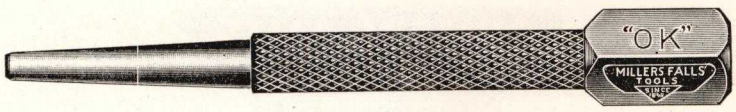
They can be depended upon to give satisfaction.

(Of special note are the square head nail sets, prick and center punches; new tools that have several advantages over the ordinary round head type.)

Nail Sets

Square Head

Nos. 451-455



The advantages of this type of head are many. Because of the larger striking surface the head will wear longer before it is rounded over. There is less chance of striking the set on an angle and therefore less sting on the fingers. It will not roll on an inclined surface. When carried in the pocket with other small tools it is easily picked out without removing the others.

Its convenience and durability will be appreciated by every carpenter and mechanic.

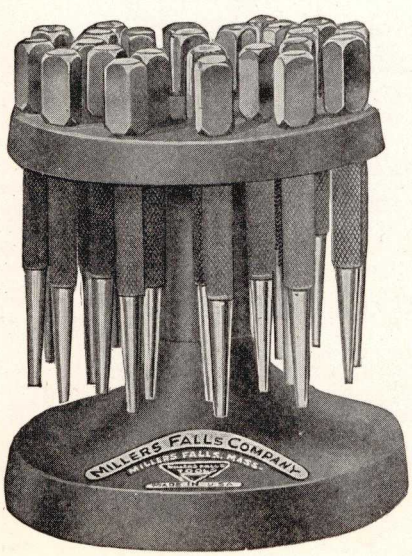
Nos.	Body	Length	Points	Weight per dozen	Price per dozen	Code
451	5/16 in.	4 in.	1/32 in.	17 oz.	$1.90	*Erston*
452	5/16 in.	4 in.	2/32 in.	17 oz.	1.90	*Erstol*
453	5/16 in.	4 in.	3/32 in.	17 oz.	1.90	*Erstay*
454	5/16 in.	4 in.	4/32 in.	17 oz.	1.90	*Erstux*
455	5/16 in.	4 in.	5/32 in.	17 oz.	1.90	*Erstaz*
4501	One dozen assorted as listed below			17 oz.	1.90	*Erstoze*

Packed one dozen of a size, or assorted, in a pasteboard box.

Unless otherwise specified, the following assortment will be furnished: two each 1/32 and 4/32 inch; Four each 2/32 and 3/32 inch.

Square Head Nail Set Display

No. 4500



The illustration does not do justice to this new display. It is a handsome device, enameled Millers Falls red, on the base of which is a decalcomania with our name and trade mark.

It takes up but little space on the counter and will turn stock rapidly. The display holds 24 square head nail sets and is given free with the first order for one gross of nail sets No. 450 either straight or assorted sizes.

Diameter of base 4¾ inches.

Height, including nail sets, 5½ inches.

Weight, including nail sets, 1¾ lbs.

Code—Ertex

"Easy Hold" Nail Sets

No. 610



This type has a square knurled body, which affords a firm hand hold, and also prevents its rolling on an inclined surface. Color drawn temper finish.

Body	Length	Points	Weight per dozen	Price per dozen
9/32	4 in.	1/32 in.	¾ lbs.	$1.50
9/32	4 in.	2/32 in.	¾ lbs.	1.50
9/32	4 in.	3/32 in.	¾ lbs.	1.50
9/32	4 in.	4/32 in.	¾ lbs.	1.50
9/32	4 in.	5/32 in.	¾ lbs.	1.50

Code—Eager

Packed one dozen of a size, or assorted sizes, in a pasteboard box.

Unless otherwise specified, the following assortment will be furnished: Two each 1/32 and 4/32 inch, four each 2/32 and 3/32 inch.

Display Sets



No. 611

This set contains twelve assorted No. 610 Nail Sets. Boxes are of hardwood covered with red paper.

Weight, per set, ¾ lbs. Price, per set, $1.60

Code—Earwig

No. 612

This set contains twenty-four assorted No. 610 Nail Sets. Boxes of hardwood, covered with red paper.

Weight, per set, 1½ lbs. Price, per set, $3.10

Code—Earnest

"O K" Nail Sets

No. 310



Made in both bright and blued finish. Blued furnished, unless bright is specified.

Body	Length	Points	Weight per dozen	Prices per dozen
9/32	4 in.	1/32 in.	13 oz.	$1.45
5/16	4 in.	2/32 in.	13 oz.	1.45
5/16	4 in.	3/32 in.	13 oz.	1.45
5/16	4 in.	4/32 in.	13 oz.	1.45
5/16	4 in.	5/32 in.	13 oz.	1.45

Code—Eastern

Packed one dozen of a size, or assorted sizes, in a pasteboard box.

Unless otherwise specified, the following assortment will be furnished: Two each 1/32 and 4/32 inch; four each 2/32 and 3/32 inch.

Display Sets

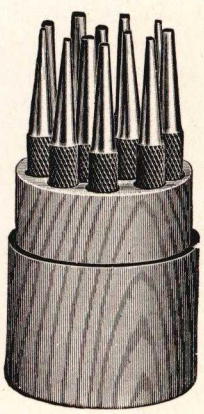


No. 324

This set contains twenty-four assorted No. 310 Nail Sets. Boxes are of hardwood, covered with paper.

Weight, per set, 1lb., 10 oz. Price, per set, $3.00

Code—Ebon



No. 312

This set contains twelve assorted sizes No. 310 Nail Sets. Box and cover of hardwood, nicely polished.

Weight, per set, 1 lb. Price, per set, $1.60

Code—Eatable

Large Nail or Spike Sets



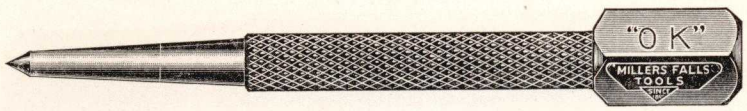
Nos.	Body	Length	Points	Weight per dozen	Price per dozen
338	3/8 in.	5 in.	2, 3, 4, 5, 6/32 in.	1½ lbs.	$2.00
339	7/16 in.	5 in.	¼ in.	2¼ lbs.	2.50
340	½ in.	5 in.	5/16 in.	2¾ lbs.	3.00
341	Assorted			1¾ lbs.	2.50

Code—Eatico

Packed one dozen in a pasteboard box.

Center Punches

Square Head No. 460



Bright finish. Body 5/16 inch diameter. Head 3/8 inch square. Length overall 4 inches.
Weight per dozen, 17 oz. Price per dozen, $1.90

Code—Exeter

Packed one dozen in a pasteboard box.

"Easy Hold" No. 615



Blued finish. Body 9/32 inch square stock. Length overall 4 inches.
Weight per dozen, 3/4 lb. Price per dozen, $1.80

Code—Effectic

Packed one dozen in a pasteboard box.

"O. K" Nos. 140-146



Shank and Head Polished.

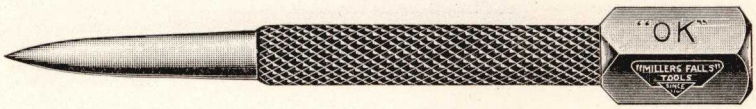
Nos.	Body	Length	Weight per dozen	Price per dozen	Code
140	9/32 in.	4 in.	3/4 lbs.	$1.50	*Effigy*
141	5/16 in.	4 in.	3/4 lbs.	1.50	*Effluent*
142	3/8 in.	4 in.	1 1/4 lbs.	1.90	*Efflux*
143	3/8 in.	5 in.	1 1/2 lbs.	2.35	*Effort*
144	7/16 in.	4 in.	1 3/4 lbs.	2.35	*Effuse*
145	1/2 in.	4 in.	2 1/4 lbs.	2.70	*Egg*
146	1/2 in.	5 in.	2 1/2 lbs.	3.15	*Egress*

Packed one dozen in a pasteboard box.

No.	Assortment	Weight per dozen	Price per dozen	Code
1401	6 each 9/32 and 5/16 in.	3/4 lbs.	$1.50	*Ekion*
1402	4 each 3/8, 7/16 and 1/2 x 4 inch.	1 lb.	2.35	*Eikon*

Prick Punches

Square Head No. 470



Bright Finish. Body 5/16 inch diameter. Head 3/8 inch square. Length overall 4 inches.
Weight per dozen, 17 oz. Price per dozen, $1.90

Code—Exota

Packed one dozen in a pasteboard box.

"Easy Hold" No. 616



Blued Finish. Body 9/32 inch square stock. Length overall 4 inches.
Weight per dozen, 3/4 lb. Price per dozen, $1.80

Code—Elect

Packed one dozen in a pasteboard box.

"O K" Nos. 166–169



Point and head polished.

Nos.	Body	Length	Weight per dozen	Price per dozen	Code
166	9/32 in.	4 in.	3/4 lb.	$1.50	*Elegant*
167	5/16 in.	4 in.	3/4 lb.	1.50	*Eliji*
168	3/8 in.	4 in.	1 1/4 lb.	1.90	*Element*
169	3/8 in.	5 in.	1 1/2 lb.	2.35	*Elevate*

Packed one dozen in a pasteboard box.

"O. K." Solid Drive Punches

Nos. 180–186



Point and head polished.

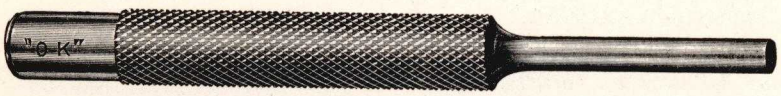
Nos.	Body	Length	Points	Weight per dozen	Code	Price per dozen
180	5/16 in.	4 in.	1/8 in.	3/4 lbs.	*Elf*	$1.50
181	3/8 in.	4 in.	3/16 in.	1 1/4 lbs.	*Elide*	1.90
182	3/8 in.	5 in.	3/16 in.	1 1/2 lbs.	*Eligib*	2.35
183	7/16 in.	4 in.	1/4 in.	1 3/4 lbs.	*Elixir*	2.35
184	7/16 in.	5 in.	1/4 in.	2 lbs.	*Elm*	2.80
185	1/2 in.	4 in.	5/16 in.	2 1/4 lbs.	*Elocut*	2.70
186	1/2 in.	5 in.	5/16 in.	2 3/4 lbs.	*Elope*	3.15

Packed one dozen in a pasteboard box.

Nos.	Assortment	Weight	Code	Price
1800	3 each of the 4 in. lengths	1 3/4 lbs.	*Elogum*	$2.35
1801	4 each of the 5 in. lengths	2 1/4 lbs.	*Elude*	2.80

"O. K." Drive Pin Punches

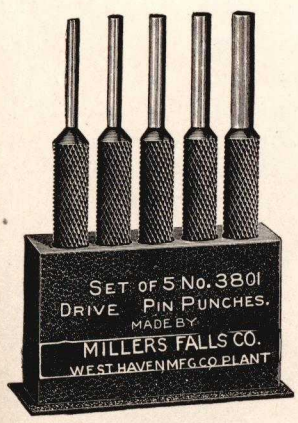
Nos. 380–384



Point and head polished.

Nos.	Body	Length	Points	Weight per dozen	Code	Price per dozen
380	5/16 in.	4 in.	1/8 in.	3/4 lbs.	*Eland*	$1.90
381	5/16 in.	4 in.	5/32 in.	1 lbs.	*Elanda*	1.90
382	3/8 in.	4 in.	3/16 in.	1 1/4 lbs.	*Elandad*	1.90
383	3/8 in.	4 in.	7/32 in.	1 1/4 lbs.	*Elandis*	1.90
384	3/8 in.	4 in.	1/4 in.	1 1/4 lbs.	*Elandus*	1.90

Packed one dozen in a pasteboard box.



Display Sets

No. 3800

Contains twenty-four assorted punches Nos. 380-384. Boxes of hardwood, covered with red paper. Same style box as No. 385, page 168.

Weight each, 2 1/4 lbs. Price each, $3.90

Code—Elandum

No. 3801

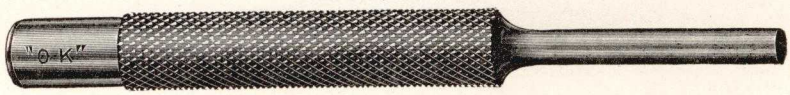
Contains five punches, one each of Nos. 380–384. Boxes of hardwood, covered with red paper.

Weight per set, 1/2 lb. Price per set, $.80

Code—Eke

"O. K." Drive Pin Punches

Nos. 480–483



Point and head polished.

Nos.	Body	Length	Points	Weight per dozen	Code	Price per dozen
480	½ in.	6 in.	3/16 in.	2½ lbs.	*Elbar*	$4.10
481	½ in.	6 in.	¼ in.	2¾ lbs.	*Elber*	4.10
482	½ in.	6 in.	5/16 in.	2¾ lbs.	*Elbis*	4.10
483	½ in.	6 in.	3/8 in.	3¼ lbs.	*Elboss*	4.10

Packed one dozen in a pasteboard box.

Display Sets

No. 4800

Contains three each of Nos. 480–483, packed in hardwood box, covered with red paper. Same style box as No. 385, page 168.

Weight each 3 lbs. Price each, $4.20

Code—Elbow

No. 4801

Contains one each Nos. 480–483, packed in pasteboard box.

Weight each 1 lb. Price each, $1.50

Code—Elbeaus

Nos. 490–493



Point and head polished.

Nos.	Body	Length	Points	Weight per dozen	Code	Price per dozen
490	½ in.	9 in.	3/16 in.	3¼ lbs.	*Eldera*	$6.50
491	½ in.	9 in.	¼ in.	3¾ lbs.	*Eldero*	6.50
492	½ in.	9 in.	5/16 in.	4 lbs.	*Elderus*	6.50
493	½ in.	9 in.	3/8 in.	5½ lbs.	*Elderum*	6.50
4900	Three each of above punches			4 lbs.	*Elder*	6.50

Packed one dozen in a pasteboard box.

Set No. 4901

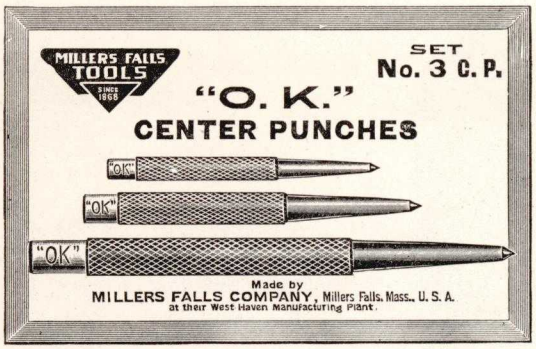
Contains one each Nos. 490–493 punches, packed in pasteboard box.

Weight per set, 1½ lbs. Price per set, $2.40

Code—Eldest

Center Punch Set

No. 3 C. P.



Three "O.K." tool makers' center punches mounted on an attractive display card. Set contains one each of the following sizes:

Body	Length
3/16 in.	2 1/4 in.
1/4 in.	2 3/4 in.
9/32 in.	4 in.

Weight 1/2 dozen sets, 3/4 lb. *Code—Ekona* Price per set, $.35

Packed one-half dozen sets in a pasteboard box.

"O. K." Light Drive Pin Punches



Set No. 36

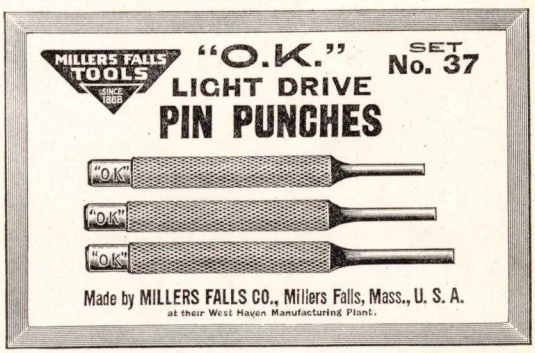
Three "O.K." Light Pin Punches mounted on an attractive display card. Set contains one each of following sizes:

Body	Length	Points
3/16 in.	2 1/4 in.	1/16 in.
3/16 in.	2 3/8 in.	5/64 in.
3/16 in.	2 1/2 in.	3/32 in.

Weight (one-half dozen sets), 7 oz.
Price per set, $.35

Code—Eject

Packed one-half dozen sets in a pasteboard box.



Set No. 37

These are the same style of punches as those in No. 36 set, but are larger. Set contains one each of following sizes:

Body	Length	Points
1/4 in.	2 3/4 in.	3/32 in.
1/4 in.	2 7/8 in.	7/64 in.
1/4 in.	3 in.	1/8 in.

Weight (one-half dozen sets), 1/2 lb.
Price per set $.45

Code—Ejector

Packed one-half dozen sets in a pasteboard box.

Sets of Punches



No. 100 R

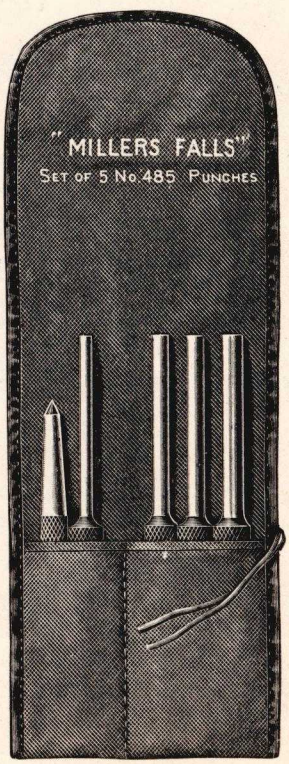
Ten assorted four-inch Punches, packed in a neat canvas roll. Set comprises the following:

One each Pin Punches No. 380 series.
One Drive Pin Punch No. 180.
One Prick Punch No. 166.
One each Center Punches Nos. 140, 142 and 145.

Weight (one-half dozen sets), 6 lbs.
Price per set, $1.70.

Code—Emanate

Packed one-half dozen sets in a pasteboard box.



No. 485

Five assorted Punches of the following numbers, packed in canvas roll:

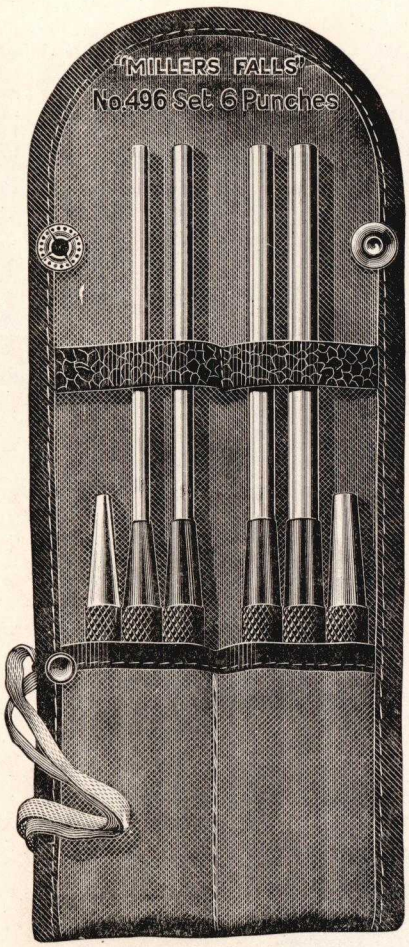
One Center Punch No. 143.
One each Drive Pin Punch No. 480 series.

Weight (one-half dozen sets), 6¾ lbs. Price per set, $1.65

Code—Embank

Packed one-half dozen sets in a pasteboard box.

Sets of Punches



No. 496

Six assorted Punches, in canvas roll. Set comprises four 9 inch and two 4 inch of the following numbers:

One each Drive Pin Punches No. 490 series.
One each Solid Drive Punches Nos. 181 and 185.

Weight (one-half dozen sets), 10¼ lbs.

Price per set, $2.75.

Code—Embay

Packed one-half dozen sets in a pasteboard box.

No. 390

Five assorted 4 inch Punches, in a hardwood box.
Set comprises following numbers:

One each Solid Drive Punches Nos. 180 and 181.
One each Drive Pin Punch Nos. 381 and 382.
One Center Punch No. 142.

Weight per set, 9 oz.

Price per set, $.85

Code—Ember



Display Set

No. 385



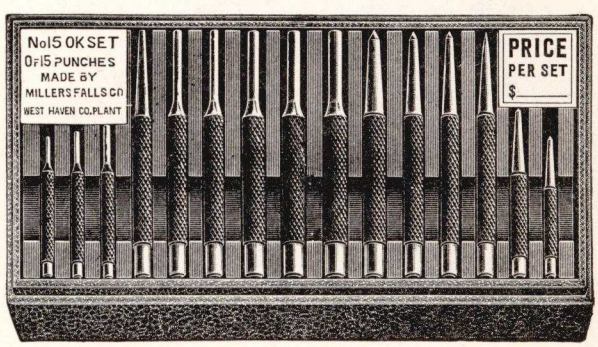
Twenty-four assorted 4 inch Punches, packed in a strong hardwood box for counter display Assortment comprises the following numbers:

Six Center Punches No. 142.
Six Prick Punches No. 168.
Two Solid Drive Punches No. 181.
Two each Drive Pin Punches No. 380 series.

Weight per set, 2½ lbs. *Code—Embody* Price per set, $3.75

Punch Set

No. 15



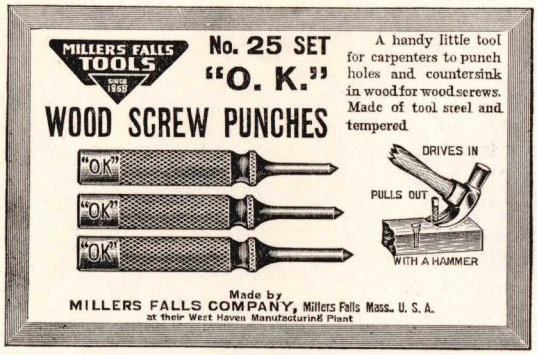
This set is designed especially for mechanics and contains fifteen assorted Punches, several sizes and lengths, put up in flat box (with cover) having a broad base with separate compartment for each Punch.

Set comprises the following:
Five different sizes Center Punches.
Eight different sizes Drive Pin Punches.
Largest tools are ⅜ x 4 inches.
One Prick Punch.
One Drive Pin Punch.
Smallest tools are 3/16 x 2¼ inches.

Weight per set, 1 lb., 5 oz. *Code—Embrace* Price per set, $2.50

Wood Screw Punches

Set No. 25



These Punches are made for carpenters to punch holes and countersink in wood for wood screws. They drive in, and are easily removed with a hammer.

The set comprises one each of the following lengths: 2⅛, 2 3/16 and 2¼ inch, with points suitable for wood screws ½ to 1¼ inch in length. Mounted on attractive gray card for counter display.

Weight (one-half dozen sets), ½ lb.

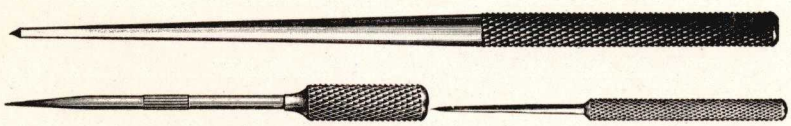
Price per set, $.45

Code—Elvan

Packed one-half dozen sets in a pasteboard box.

Machinists' Scribers

Nos. 1–3



Round body knurled to give firm hand hold. Points are sharp, and so tapered that the user is assured a clear view.

Made of special tool steel, properly tempered. Shank and head polished.

Nos.	Body	Length	Weight per dozen	Price per dozen	Code
1	¼ in.	6½ in.	10 oz.	$2.90	*Emend*
2	¼ in.	4½ in.	5 oz.	2.70	*Emerald*
3	3/16 in.	3½ in.	4 oz.	2.15	*Emery*

Packed one dozen in a pasteboard box.

Display Set

No. 123

Set comprises one each Nos. 1, 2 and 3 Scribers mounted on an attractive gray card for counter display.

Weight (one-half dozen sets), 18 oz.

Price per set, $.75

Code—Emit

Packed one-half dozen sets in a pasteboard box.





AUTO TOOLS

Our line of auto tools is rapidly broadening. It includes at the present time Auto and Truck Jacks, Rim Wrenches, Valve Grinders, Bushing Drivers and many small tools for repair and assembling work Several new tools are under way and will be announced at a later date.

Worthy of particular mention are our Truck Jacks Nos. 150 and 155 and Auto Jack No. 145. No better jacks are made. No. 155 has for years been standard equipment on several nationally known motor trucks, which in itself, is proof of its worth. No. 150 is identical except smaller. No. 145 is a passenger car jack, controlled by means of an extensible handle, operated without stooping or reaching under the car, either to place in position or remove.

Strength and durability feature every tool. They can be depended upon to give lasting service.

Millers Falls Jacks

Laugh at MILLERS FALLS TOOLS the Load

SINCE 1868

INTO these sturdy jacks we have built the experience and "know-how" of our 54 years of tool-making. Millers Falls Jacks, like other Millers Falls tools, are simple in construction and very strongly made. The Millers Falls guarantee backs every Jack. Stock Millers Falls Jacks and list them in your catalog. Jack up your Jack Sales.

Truck Jack No. 155

A strong, easily-operated, roller-bearing truck jack. Adopted by many well known makers of motor trucks.

Auto Jack No. 145

No tool manufactured by the Millers Falls Company has ever met with more gratifying response from the hardware and accessory trades.

Truck Jack No. 150

A powerful light weight ball bearing truck jack. A good seller and stays sold. Doesn't get out of order. Stock a dozen.



Auto Jack

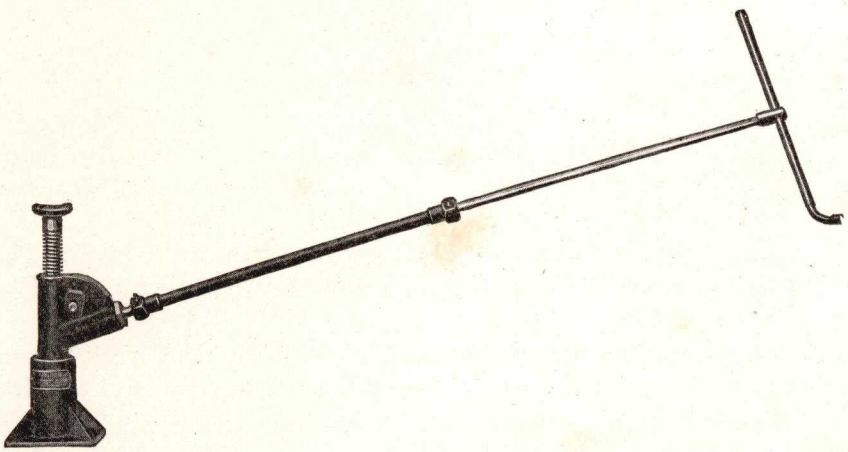
No. 145

Ease of operation, convenience and dependability characterize No. 145 Auto Jack. It can be placed under car, operated, and removed without stooping, reaching under car, or soiling hands or clothes.

A feature not found in any other jack is the quick adjusting device, by which the screw can be lifted to its full height, or instantly released, by simply lifting the worm gear.

Another distinguishing feature is the adjustable base, which permits three ranges of height before screw is raised.

It can be depended upon to lift to its full capacity easily, quickly and under all road conditions.



Specifications

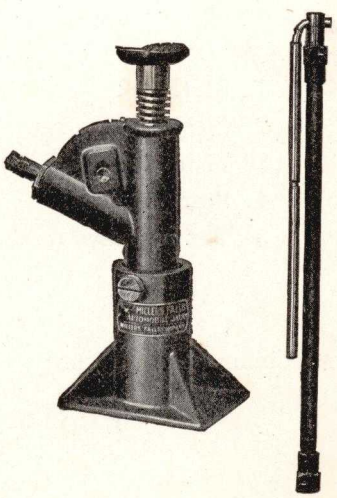
Ball bearing end thrust. All working parts of steel. Base grey iron, checked on bottom. Barrel, malleable iron. Cap, saddle shaped, corrugated top. Handle steel tubing, with steel telescopic rod, extensible to 36 inches.

Handsomely finished a lustrous black overall, except thin red stripe around base.

Minimum height, 9½ in. Maximum height, 18 in.

Capacity, 2 tons. Weight, 10½ lbs. Price, $6.50

Code—Jacobus

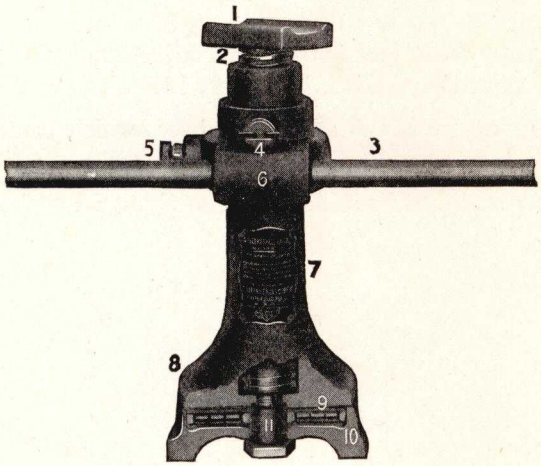


Auxiliary base (4 in. x 6 in.) for use on very soft ground $.50

Packed one in a pasteboard carton.

Truck Jack

No. 155



A 15 ton load is as easily lifted as a load half this weight with No. 155 jack. This easy lift is made possible by ball bearings in the base, operating between two hardened steel discs. The jack runs practically frictionless.

Ratchet permits operation in awkward places. Works either to right or left by turning knurled knob on collar. Stop pawl automatically prevents screw being turned out of barrel.

Concave cap adapts it to any shape of axle. Broad base insures solid footing. Cut screw. Base enameled red. Other parts japanned black. Metal plate with instructions for operation.

Specifications

1 Steel cap.
2 Steel lifting screw.
3 17 in. lever (or rod) of special steel.
4 Stop pawl.
5 Ratchet pawl (encased in steel bushing).
6 Ratchet collar—grey iron.
7 Barrel—grey iron.
8 Base—grey iron.
9 Hardened steel discs.
10 Ball bearings—steel.
11 Steel kingbolt.

Maximum height 18 in. Minimum height 11⅜ in. Capacity 15 tons.

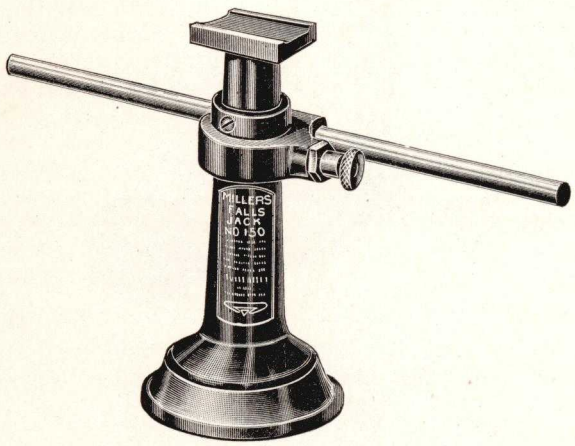
Weight 22¾ lbs. Price $10.00

Code—Jacobin

Packed one in heavy paper.

Truck Jack

No. 150



One of the many advantages of Nos. 150 and 155 over other truck jacks is its horizontal lever action, which permits its use with trucks with overhanging bodies, where a vertical pump action is difficult.

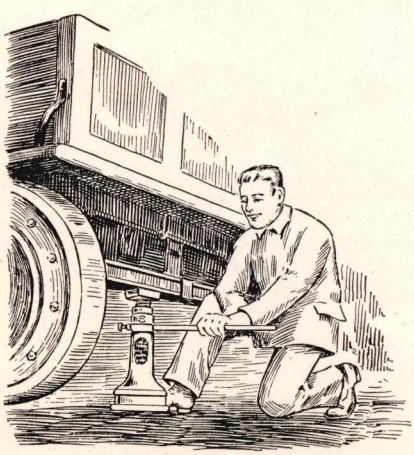
A Quick, Easy Lift

Because friction is reduced to a minimum, either No. 150 or No. 155 is easily operated with one hand.

The cap is set fast to the screw and both remain stationary while the barrel revolves around the screw. The kingbolt passes through the stationary base into the barrel and revolves with it.

Holding cap with left hand and revolving barrel with the right seats the cap under the load. After setting the knurled ratchet nut, rotating the ratchet collar with rod, raises the load.

Reversing the knurled nut lowers the load.



Specifications

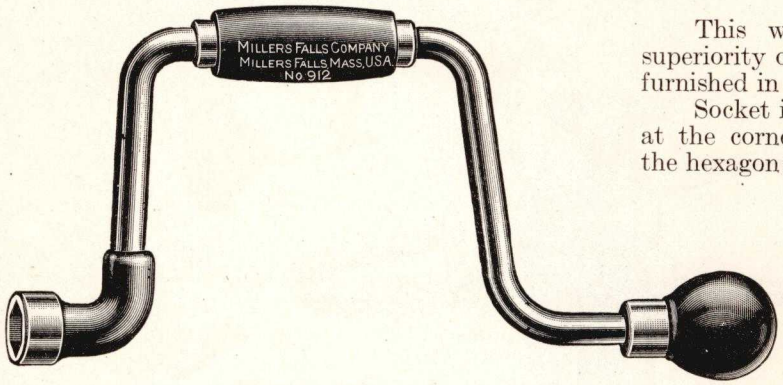
Identical with No. 155 except smaller.

Maximum height 16 inches.	Minimum height 10 inches.
Capacity 3 tons.	Weight 11½ lbs.
16 inch lever (or rod).	Price $7.00

Code—Jaceter

Rim Wrenches

Nos. 910–914



This wrench has many features of superiority over the ordinary type generally furnished in automobile kits.

Socket is extra strong to resist cracking at the corners, or wearing of the sides of the hexagon; is broached accurately to size; and is securely pinned and soldered to the sweep rod. It cannot wobble or work loose.

Has square tapered hole back of hexagon which holds screw driver bits, and shanks of brace socket wrenches. This is an exclusive feature.

Free acting sweep handle; knob handle gives an easy and comfortable grip.

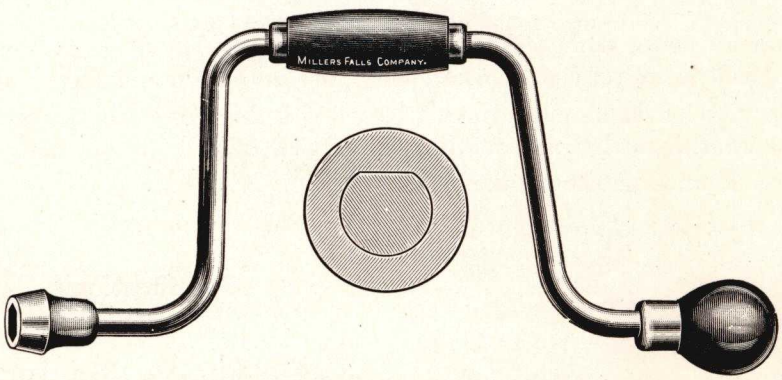
Nickel plated sweep rod. Handles, hardwood, stained and polished. Socket enameled green. 10 in. sweep.

Nos.	910	911	912	913	914
Size of socket by 16ths	10	11	12	13	14
Price each	$1.45	1.45	1.45	1.45	1.45
Code	*River*	*Ripper*	*Ritual*	*Rival*	*Ringlet*

Weight (one-half dozen), 9¼ lbs.

Packed one-half dozen in a pasteboard box.

Nos. 810–814



This series is not as highly finished as No. 910 series and differs in the method of attaching socket to the rod. Instead of an angle socket the brace rod is bent to enter a straight socket. To prevent possible loosening the rod is flattened on one side to fit against a flat surface in the socket. Ten inch sweep. Polished sweep rod.

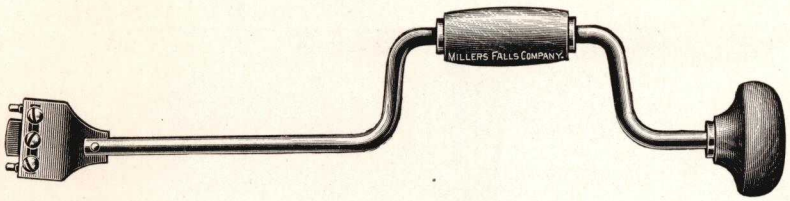
Nos.	810	811	812	813	814
Size of socket by 16ths	10	11	12	13	14
Price each	$.85	.85	.85	.85	.85
Code	*Weapon*	*Weasel*	*Weather*	*Weaver*	*Wedding*

Weight (one-half dozen), 9 lbs.

Packed one-half dozen in a pasteboard box.

Valve Grinders

No. 235



This valve grinder is of the popular brace type. It is equipped with a universal working head, having an adjustable spanner and flat blade, to fulfill the requirements of different types of valve heads. The working head is attached to the sweep so that there is a slight play in all lateral directions. This decreases the chance of the spanner or blade slipping out of engagement with the spanner holes or slot in the valve head.

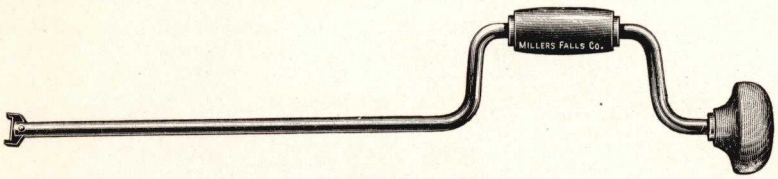
Head and handle stained hardwood, free acting, secured by metal bearings. Steel rod, polished.

Sweep, 4 inch radius. Length below sweep, 6½ inches. Length overall 15 inches.

Weight (one-half dozen) 6 lbs. *Code—Volcano.* Price each, $.85

Packed one-half dozen in a pasteboard box.

No. 236



This differs from No. 235 in the type of working head and length overall. It is made for use on Ford cars and designed especially for the Ford construction.

The working head has a non-adjustable spanner to fit the spanner hole in the top of Ford valve.

Length below sweep, 12½ inches. Length overall, 21 inches.

Otherwise same as No. 235.

Weight (one-half dozen), 6¾ lbs. *Code—Vitriol* Price each, $.60

Packed one-half dozen in a pasteboard box.

No. 237



This tool is the same as No. 235 except has round shank for use with bit brace or hand drill, instead of a complete brace sweep.

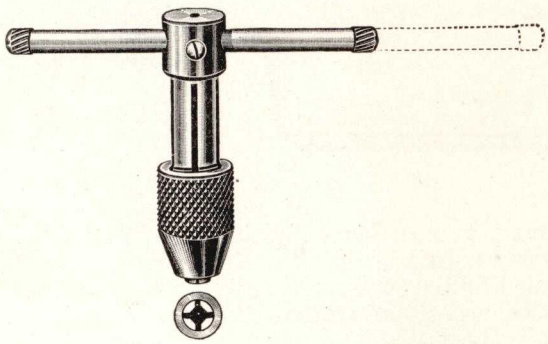
Shank ⅜ x 4 in. Weight (one-half dozen), 1 lb. 7 oz. Price each, $0.45

Code—Vitrix

Packed one-half dozen in a pasteboard box.

Tap Wrenches

Nos. 10–12



This tool is designed for holding taps, reamers, small drills, or other small tools.

It is superior to similar wrenches, because of its slide handle, which permits its use in many places where a rigid handle cannot be turned.

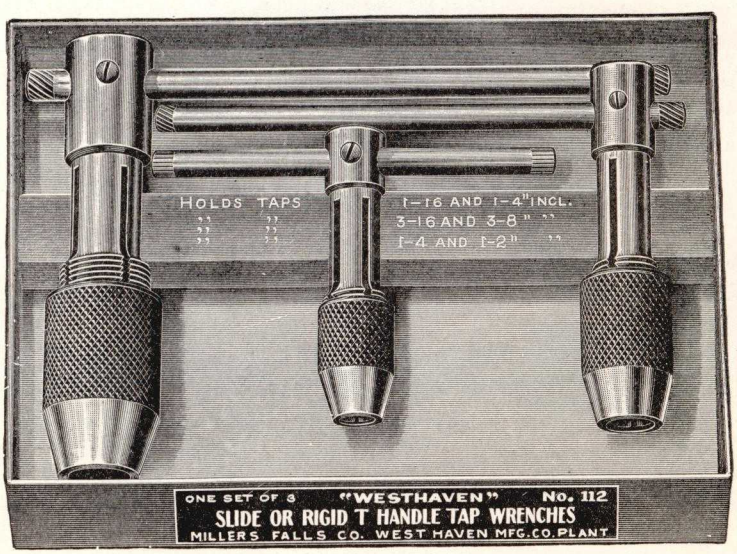
For ordinary work handle can be set rigid by means of a set screw.

Chuck shell is knurled. Jaws are tempered, sleeve is case hardened. Centers accurately.

Nos.	Length of Handle	Capacity	Weight	Price each	Code
10	3¼ in.	Up to ¼ in.	1¾ lbs. (½ doz.)	$.65	*Emulons*
11	4¾ in.	Up to ⅜ in.	3½ lbs. (½ doz.)	.80	*Encode*
12	5¼ in.	Up to ½ in.	1⅛ lbs. (1/6 doz.)	1.15	*Encourage*

Nos. 10 and 11 packed one-half dozen, and No. 12, one-sixth dozen in a pasteboard box.

Set No. 112

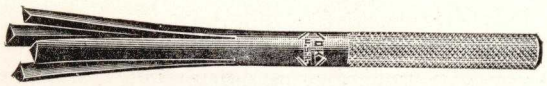


Contains one each Nos. 10, 11 and 12 Tap Wrenches packed in a pasteboard box.

Weight per set, 18 oz. *Code—Endire* Price per set, $2.60

Bushing Drivers

Nos. 2 and 4



A strong driver made of high quality tool steel, spring tempered. Round knurled body. Tempered finish. Especially useful in removing bushing from automobile steering knuckles. When prongs are pulled through a bushing, they spring apart, permitting it to be easily driven out.

No. 2 with two prongs is for bushings having holes ½ inch to ⅝ inch in diameter.

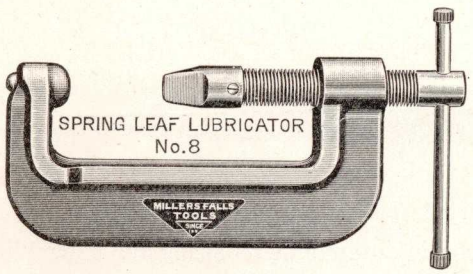
No. 4 with four prongs is for bushings having holes ⅝ inch to 13/16 inch in diameter.

Nos.	Body	Length	Weight per ½ dozen	Price each	Code
2	7/16 in.	8 in.	2 lbs.	$ .70	*Enird*
4	½ in.	8 in.	2½ lbs.	1.10	*Enlist*

Packed one-half dozen in a pasteboard box.

Spring Leaf Opener

No. 8



A strong, efficient tool for spreading automobile spring leaves. It affords an easy, rapid method of applying grease and graphite to every part of the spring. As wedge is forced between the leaves the clamp automatically centers itself on the opposite side.

Malleable iron frame. Steel screw and handle. Wedge of tool steel, spring tempered.

Weight each, 1¾ lbs. *Code—Emulsion* Price each, $1.35

Packed one in a pasteboard box.

Cotter Pin Puller

No. 7



A tool which should be in every car owner's kit. Easier and quicker to use than pliers. Knurled handle gives firm hand hold.

Drop forged from special steel. Length overall 6½ inches.

Weight (one-half dozen), 1½ lbs. Price each, $1.10

Code—Epicure

Packed one-half dozen in a pasteboard box.

"O K" Assembling Tool

No. 2



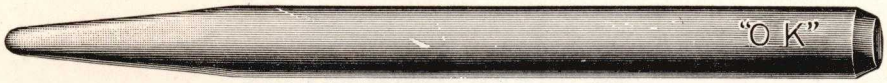
This tool is especially useful in automobile repairing and assembling, being used to line up holes through which pins, bolts, screws, etc., are to be placed.

Made of tool steel, spring tempered. Handle, heavily knurled. Taper polished.

Body	Point	Length	Weight one-half dozen	Price each	Code
½ in.	3/16 in.	10 in.	3 lbs.	$.70	*Energy*

Packed one-half dozen in a pasteboard box.

"O K" Line-Up Tools



The particular use of these tools is to line up automobile spring leaves preparatory to inserting the spring bolts, but are adapted for general repair and assembling work as well.

They are accurately made and allow spring bolts to follow without damaging the thread. Easily pay for themselves in the time and bother they save.

Made of tool steel, properly hardened and tempered. Highly polished overall.

One each of the two sizes listed below, mounted on an attractive grey card for case or counter display.

Body	Length
5/16	3 5/8 in.
3/8	4 3/8 in.

Weight (one-half dozen sets), 1½ lbs. Price per set, $.35

Code—Energus

Packed one-half dozen sets in a pasteboard box.

Set No. 34



POLISHING HEADS

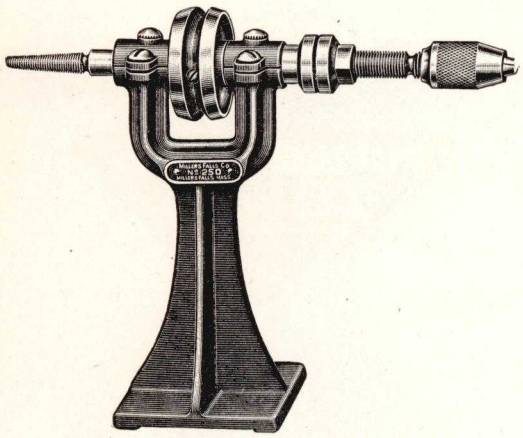
Millers Falls Polishing and Grinding Heads fill a real need in every shop, whether large or small. There are innumerable uses for these tools, particularly in the way of repair work on automobiles, trucks, tractors and similar equipment.

Millers Falls heads combine strength without extra weight and are accurate and smooth running. The base is cast in one piece, and is well ribbed to give strength and rigidity; spindles and collars are lathe turned; adjustable bearings provide for take-up on the spindles; pulleys on smaller polishing heads are grooved for round belts, but have three-quarter inch face for flat belts as well. Lubrication is supplied through improved oil caps. Every head is attractively finished, having black japanned frame with red bearing housings.

The Millers Falls line embraces nine different heads, and meets every shop requirement.

Polishing Heads

No. 250



This is a small, well proportioned head which will accommodate wheels 1 inch thick and with ½ inch hole. Tapered end of spindle takes felt, or other cloth buffing wheels. Equipped with Millers Falls 3-jaw chuck with capacity 0-3/16 inch round shanks.

Specifications

Flanges adjustable from 0–⅞ inches, securely locked by nut. Pulley grooved for ¼ inch round belt or the ¾ inch face can be used for flat belt.

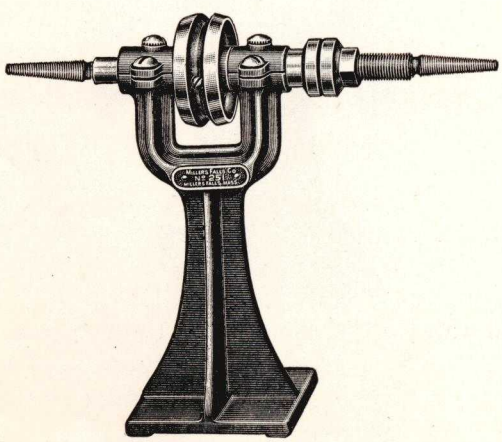
Height to center of spindle 6 inches. Diameter of spindle 7/16 inches.

Diameter of pulley 1–13/16 in. Weight 2¼ lbs. Price each, $2.75

Code—Wore

Packed one in a pasteboard box.

No. 251



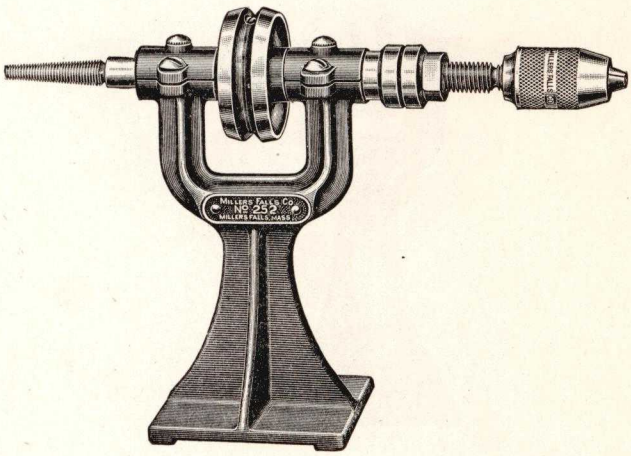
Identical with No. 250 except is not equipped with chuck. Price each, $2.25

Code—Woof

Packed one in a pasteboard box.

Polishing Heads

No. 252

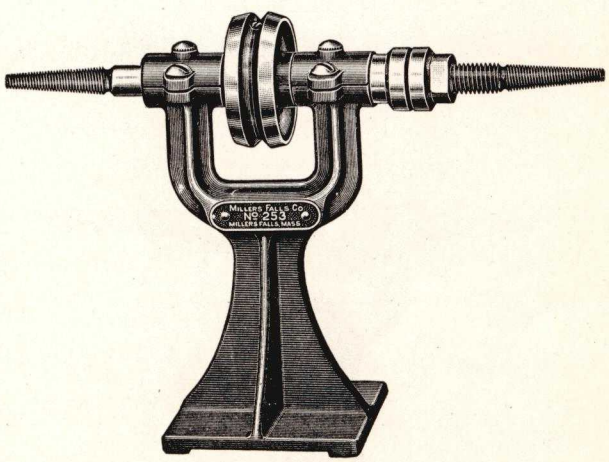


This head is of the same general construction as No. 251 but is larger and heavier. Takes wheels 1 inch thick with ½ inch hole. Equipped with Millers Falls 3-jaw chuck, with capacity 0–¼ inch round shanks. Height to center of spindle 6 inches. Diameter of spindle ½ inch. Diameter of pulley 2¼ inch. Weight 3¼ lbs. Price each, $4.35

Code—Worthy

Packed one in a pasteboard box.

No. 253



Identical with No. 252 except is not equipped with chuck.

Price each, $3.15 *Code—Wort* Packed one in a pasteboard box

No. 256

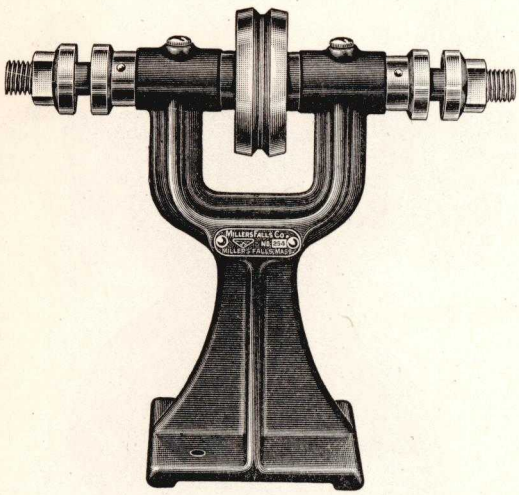
This head has frame same as No. 255 on opposite page, but with spindle same design as No. 252. Spindle takes grinding wheels ¾ inch thick and ½ inch hole, and a Millers Falls chuck with capacity up to ¼ inch; opposite end threaded taper to hold buffing wheels.

Weight 9¼ lbs. *Code—Wyon* Price each, $8.00

Packed one in a corrugated carton.

Grinding Heads

No. 254



The only difference between this and No. 253 is in the design of the spindle. Takes wheels $\frac{5}{8}$ inch thick with $\frac{1}{2}$ inch hole.

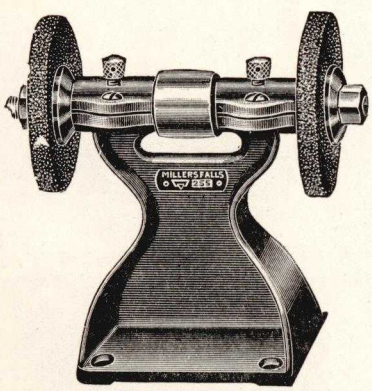
Flange adjustable from 0 to $\frac{1}{2}$ inch. Securely locked by nut. Pulley grooved for $\frac{1}{4}$ inch round belt or the $\frac{3}{4}$ inch face can be used for flat belt. Height to center of spindle 6 inches.

Diameter of spindle $\frac{1}{2}$ inch. Diameter of pulley 2 inches.

Weight 4 lbs. *Code—Wonder* Price each, $3.75

Packed one in a pasteboard box.

No. 255



This is one of our newer types, somewhat different in design. Exceptionally well proportioned. Improved oil caps protect bearings from dirt.

The spindle holds on either end grinding wheels $\frac{3}{4}$ inch thick with $\frac{1}{2}$ inch hole.

Steel pulley takes $1\frac{1}{4}$ inch belt. Height to center of spindle $7\frac{1}{2}$ inches.

Diameter of spindle $\frac{3}{4}$ inch. Diameter of pulley $1\frac{3}{8}$ inch.

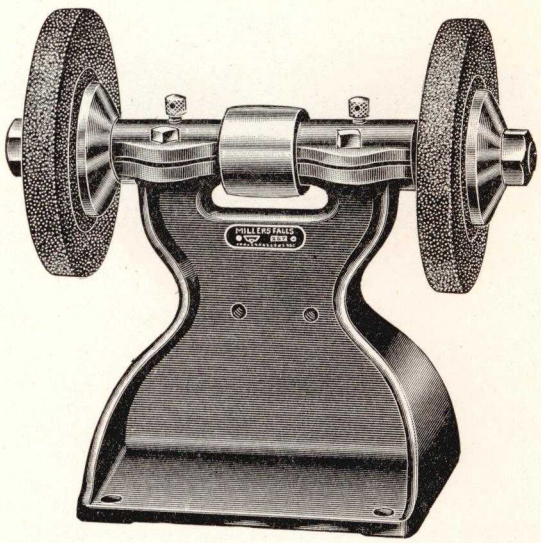
Weight $9\frac{1}{4}$ lbs. *Code—Wyola* Price each, $6.00

(No emery wheels are furnished.)

Packed one in a corrugated carton.

Grinding Heads

No. 257

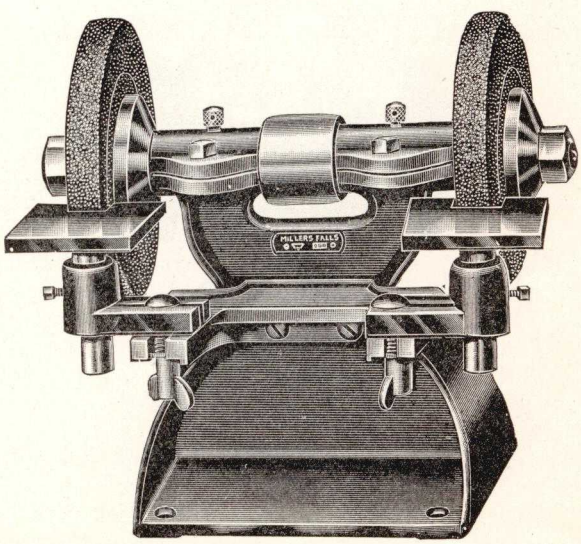


Although larger and heavier, has the same frame construction as No. 255. Spindle takes grinding wheels 1 inch thick with ¾ inch hole.

Steel pulley takes 1½ inch belt.
Diameter of spindle 1 inch.
Weight 26½ lbs.
(No emery wheels are furnished.)

Height to center of spindle 10¼ inches.
Diameter of pulley 1–15/16 inches.
Code—Wyosta Price each, $11.75
Packed one in a corrugated carton.

No. 258



Same frame design as No. 257, but has the added features of table for holding work and grinding rests, both of which are adjustable and easily detached if desired.

This equipment adds much to the utility of the tool with but little extra cost.

Weight 32½ lbs.
(No emery wheels are furnished.)

Code—Wyosten Price each, $15.00
Packed one in a corrugated carton.



VISES

While our line of vises is not large, yet it covers the range necessary for general all around work.

Particular care is given to the making of the screws and sliding jaws. The screws are of machine steel, electrically welded, and have accurately cut threads. The sliding jaws are carefully machined to insure an exact fit to the boxed housing of the rear jaw. This not only insures ease of operation, but also minimizes lost motion.

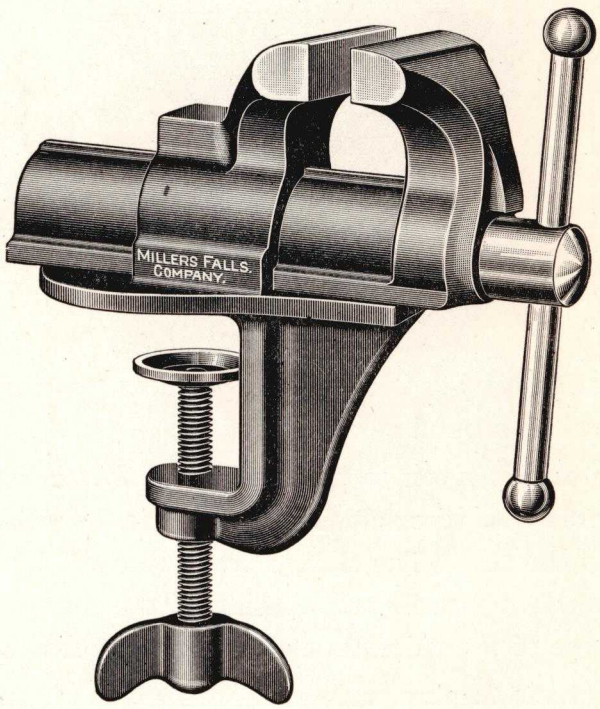
An extra large clamping surface is given to the clamp vises, which increases their rigidity when clamped to the bench.

The detachable steel jaw faces on No. 522 series are an advantage because they can be easily replaced when worn smooth.

Each vise is tested before being packed, and like every Millers Falls tool, is guaranteed against defect in material and workmanship.

Oval Slide Clamp Vise

No. 420



This is an inexpensive vise of the oval slide clamp type. It is designed for light work, and is an excellent vise for the home work bench.

The clamp has an unusually wide range, which permits clamping on benches with extra thick planks. The clamp washer is extra large and holds the vise firmly.

The sliding jaw is accurately fitted into the rear jaw to minimize play.

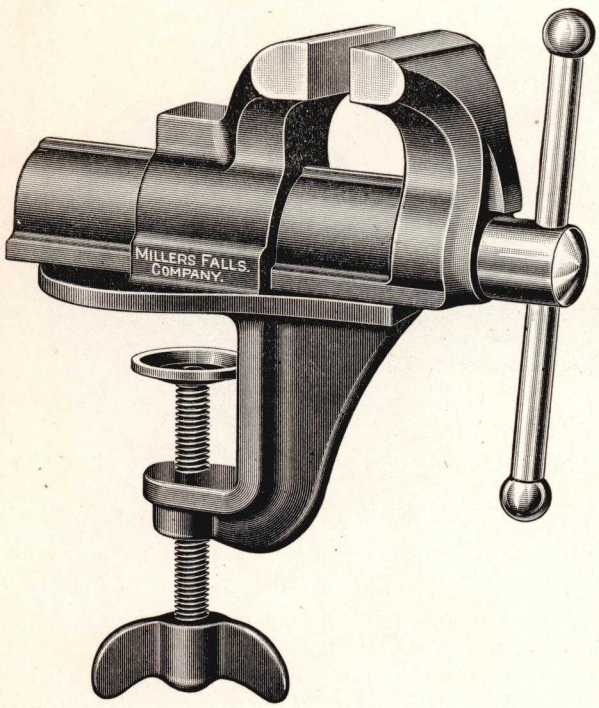
Vise screw, clamp screw and handle of steel. Iron jaws.

Main parts enameled red. Jaws polished.

Width of jaws	1½ in.	1¾ in.	2 in.	2½ in.	3 in.
Opens	1½ in.	1¾ in.	2 in.	2½ in.	3 in.
Weight	2½ lbs.	3 lbs.	3½ lbs.	6 lbs.	8¾ lbs.
Price	$1.50	2.00	2.25	3.50	4.50
Code	*Vaccuum*	*Vanity*	*Vassal*	*Vignette*	*Vision*

Oval Slide Clamp Vise

No. 520



The construction of this vise is identical with No. 420 except for the jaws. These are steel and are checked to give greater gripping power.

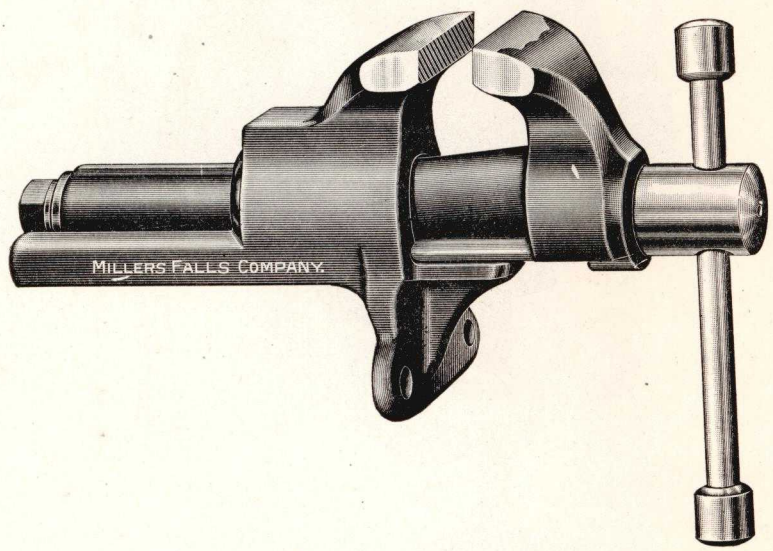
The broad clamping surface on both this and No. 420 vise is a great convenience, and fits it for use on practically any size or kind of bench.

Main parts japanned red. Jaws polished.

Width of jaw	1¼ in.	1½ in.	1¾ in.	2 in.	2½ in.	3 in.
Weight	2¼ lbs.	2½ lbs.	3 lbs.	3½ lbs.	6 lbs.	8¾ lbs.
Price	$1.30	1.70	2.25	3.25	4.25	5.25
Code	*Vedette*	*Volume*	*Veer*	*Vorter*	*Votex*	*Vose*

Oval Slide Vise

No. 521



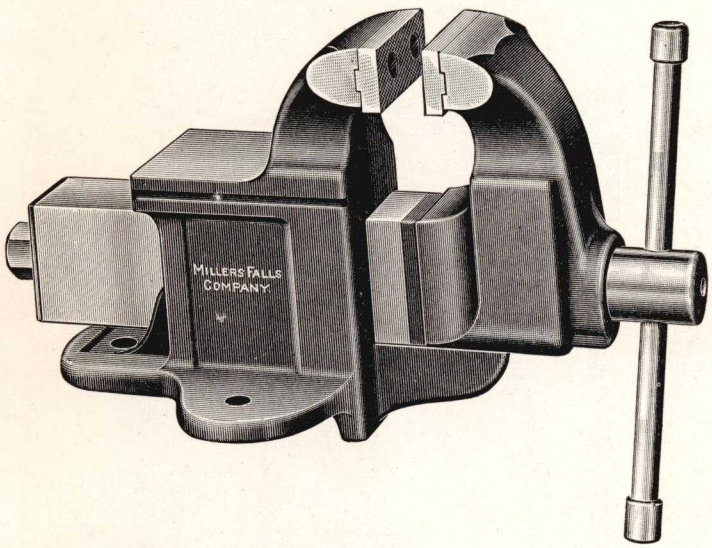
These are strong, well proportioned vises of the oval slide pattern. Screw is fitted with adjustment on the end to take up wear and prevent lost motion.

Hardened steel jaws, welded on; checked to increase gripping power. Main parts japanned black. Jaws, handle and main screw head polished.

Width of jaw	2 in.	2½ in.	3 in.	3½ in.	4 in.	4½ in.
Weight	7 lbs.	11½ lbs.	17½ lbs.	27½ lbs.	35½ lbs.	41½ lbs.
Price	$4.00	5.00	6.00	7.50	9.50	13.00
Code	*Valor*	*Vamose*	*Van*	*Vaquero*	*Vat*	*Vast*

Mechanics' Vise

No. 522



This is a heavy, rugged vise built to withstand rough shop usage.

There is not a weak point in its entire construction, and its greatest strength lies at points subject to the most severe strain.

Screw is machine steel, accurately cut. Adjustment on end to take up wear and prevent lost motion. Steel handle. Steel faced anvil.

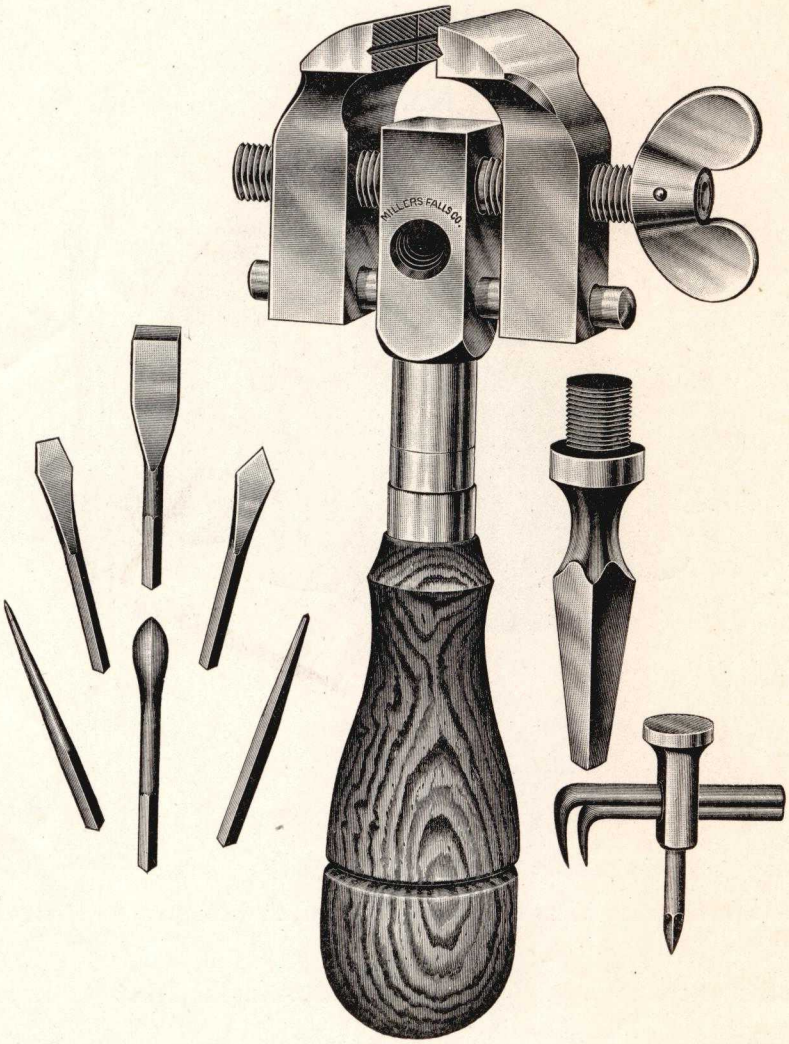
Detachable steel jaw faces, corrugated to give an even, perfect grip.

Main parts japanned black. Handle and jaws polished.

Width of jaw	1½ in.	2 in.	2½ in.	3 in.	3½ in.	4 in.	4½ in.	5 in.
Opens	1⅝ in.	3½ in.	3½ in.	4½ in.	4½ in.	5 in.	5 in.	6 in.
Weight	3½ lbs.	11 lbs.	22 lbs.	41 lbs.	41½ lbs.	54½ lbs.	55 lbs.	78 lbs.
Price	$3.50	6.50	9.25	13.25	14.00	16.00	18.25	22.50
Code	*Vellum*	*Venary*	*Venue*	*Verdant*	*Verst*	*Vert*	*Versus*	*Vertex*

Hand Vise

No. 1



An exceptionally strong, well made vise, superior to the ordinary tool of this kind.

Handle is detachable and can be screwed into vise at right angles. Bit shank provided which can be screwed into the tool either in the position of the handle as shown in the illustration, or at right angles, permitting use in a bit brace.

Cocobolo handle, hollow end, containing chisel, screw driver, countersink, square reamer, brad awl, scratch awl and washer cutter.

Forged steel jaws. Steel screw. Exposed metal parts polished and nickel plated.

Length 6¾ inches. Jaws open, 1 inch.

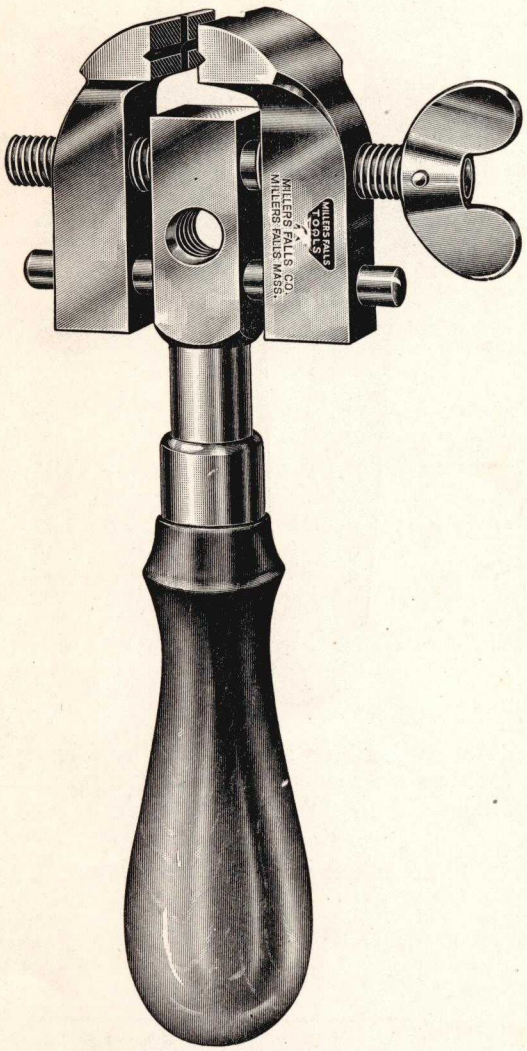
Width of jaws 1¼ inches. Weight each, 17 oz. Price each, $4.75

Code—Valiant

Packed one in a pasteboard box.

Hand Vise

No. 2



The main difference between this and No. 1 vise is in the handle, which is solid and of stained hardwood. It is detachable, however, same as No. 1.

Length 7 inches. Width of jaws 1¼ inches.

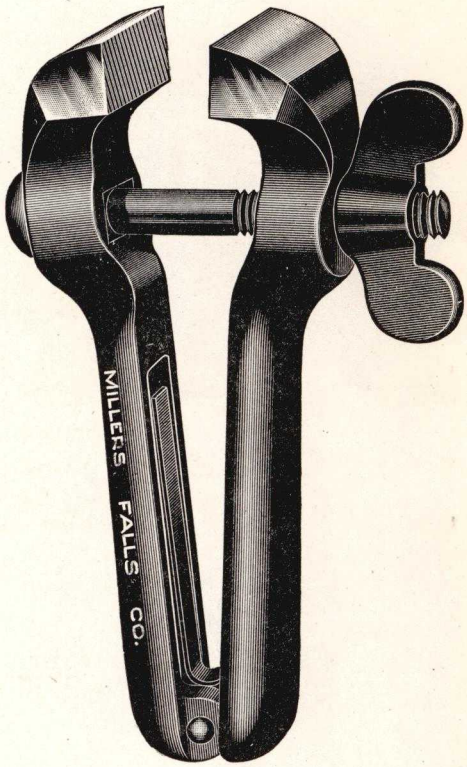
Jaws open 1 in. Weight each, 14 oz. Price each, $4.00

Code—Valid

Packed one in a pasteboard box.

Hand Vise

No. 3



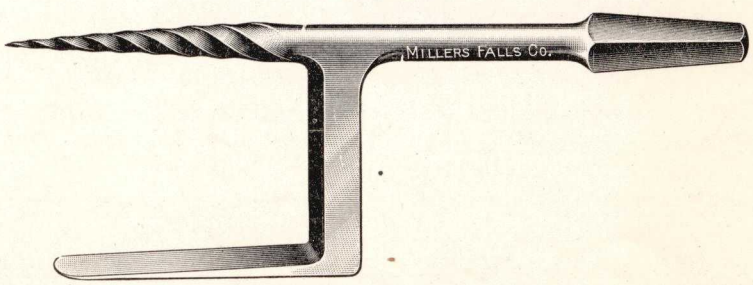
This vise is made entirely of steel. Jaws are operated by a heavy spring, which is controlled by thumb nut and screw bolt. Jaws are checked to insure firm grip. Enameled black, except jaws are polished. Length 5 inches. Width of jaws 1½ inches. Jaws open 1½ inches.

Weight each, 1⅛ lbs. *Code—Valuation* Price each, $1.60

Packed one in a pasteboard box.

Pulp Borer

No. 341



A special tool used with a bit brace for cutting sample discs from wood pulp. Bores to depth of 4½ inches, and removes 48 perfect discs of pulp. Forged steel blade. Milled spiral.

Weight each 4 oz. *Code—Polyp* Price each, $5.00

Wrapped one in a paper package.

Jack Screws

Nos. 1–20



These jacks are heavier, more accurately made, have easier action and are more durable than the ordinary jack screw.

Screws are forged from Bessemer steel. Threads are lathe cut, and mesh perfectly with the barrel. Swivel caps are securely held to screw. Tops are either checked, or have raised ribs to prevent slipping. Barrels are cast iron. Base is broad. Enameled black overall.

Nos.	Diameter of Screw Inches.	Height of Barrel. Inches.	Minimum Height of Jack. Inches.	Net Rise. Inches.	Maximum Height of Jack. Inches.	Weight Lbs.	Estimated Lifting Capacity. Tons.	*Code With Lever.	Price With Lever.	Price Without Lever.
1	1¼	6	9	4	13	8½	5	*Jack*	$ 4.90	$ 4.60
2	1¼	7	10	6	16	9½	5	*Jade*	5.50	5.20
3	1½	7	10¾	5	16	16	8	*Jag*	6.50	6.20
4	1½	9	12¾	7	20	20½	8	*Jaguar*	7.75	7.45
5	1½	11	14¾	9	24	22½	8	*Jamb*	8.90	8.60
6	1¾	9	12¼	6	18	22½	12	*Japan*	9.10	8.80
7	1¾	10½	14¼	8	22	25	12	*Jasmine*	10.25	9.95
8	1¾	12½	16	10	26	29	12	*Javelin*	10.80	10.50
9	1¾	14½	18¼	12	30	32	12	*Jay*	12.00	11.70
10	2	8	12¼	5	17	27	15	*Jannet*	12.10	11.80
11	2	10	14	7	21	31	15	*Jet*	12.75	12.45
12	2	12	16¼	9	25	35	15	*Jetty*	13.25	12.95
13	2	16	20¼	13	33	41	15	*Jewel*	14.50	14.20
14	2½	9½	15	8	23	45½	20	*Jib*	14.50	14.20
15	2½	11½	16¾	10	27	50	20	*Jig*	15.40	14.90
16	2½	15½	20¾	14	35	62	20	*Jimp*	17.00	16.50
17	2½	19½	25	18	43	75	20	*Jocund*	19.50	19.00
					CAR JACKS.					
17½	2	6	10	4	14	19½	15	*Jog*	$ 9.90	$ 9.60
18	2	8½	12½	5	17	25	15	*Joss*	10.90	10.50
19	2	10½	14¼	7	21	29	15	*Jot*	11.75	11.45
20	2	12	16	9	25	35	15	*Joust*	12.75	12.45

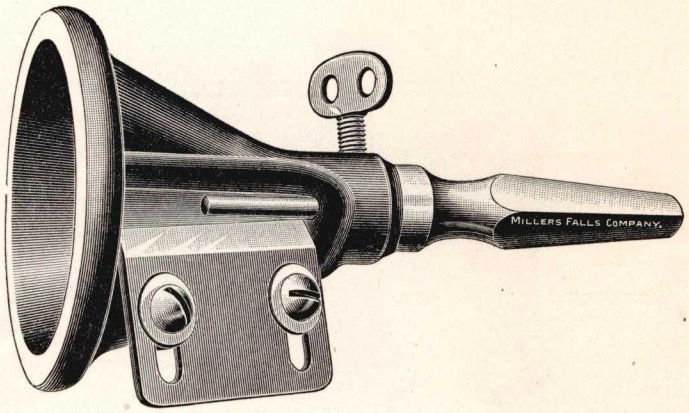
* N.B.—Jackscrews are furnished with levers unless ordered without.

Jackscrew Nos	1, 2, 3, 4, 5	6, 7, 8, 9	10, 11, 12, 13 17½, 18, 19, 20	14, 15, 16, 17
Diameter of Lever	⅝ in.	¾ in.	13/16 in.	1 in.
Length of Lever	17 in.	18 in.	19 in.	24 in.
Weight of Lever	1½ lbs.	2¼ lbs.	2¾ lbs.	5¼ lbs.
Price of Lever	$0.30	0.30	0.40	0.50

* For code word of jackscrews without lever, prefix "no" to code word for same number with lever; *e.g.*, No. 1 without lever, *Nojack:* No. 2 without lever, *Nojade.*

Spoke Trimmers

Nos. 101 and 102



Adjustable knife, sharpened and ready for use. Adjustable stop gauge, clamped with thumb screw. Iron casting, black enameled. Shank polished.

No.	Capacity	Weight	Code	Price each
101	Round stock up to 1⅞ in. (¼ dozen) Square stock up to 1⅝ in.	2¼ lbs.	*Wren*	$ .90
102	Round stock up to 3 in. (1/6 dozen) Square stock up to 2⅛ in.	3 lbs.	*Wrest*	1.25

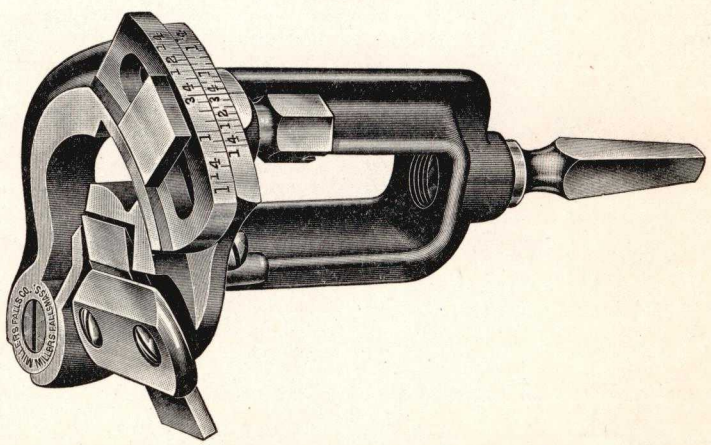
No. 101 will cut square stock up to 1⅞ in. and No. 102 up to 3 in. if corners of wood are first trimmed.

(Furnished with ½ in. round shank, if desired, without extra charge.)

No. 101 packed ¼ dozen and No. 102, 1/6 dozen in a pasteboard box.

Hollow Auger

No. 3



Adjustable to cut tenons from ¼ to 1¼ inches. Graduated index. Stop gauge to regulate length. Knife carefully tempered and sharpened. Steel adjusting screw. Head castings of malleable iron. Frame enameled black and red. Bright parts polished.

Weight each ¾ lb. Price each, $6.25

Code—Wove

(Furnished with ½ inch round shank, if desired, without extra charge.)

Nail Pullers

No. 3



A powerful, quickly acting tool of the compound lever type which works easily and freely. Jaws open and close automatically. Nails partly drawn from wood can be gripped securely at any point.

Iron handle, japanned black. Steel plunger and jaws.

Length closed 20½ inches. Length extended 26½ inches.

Weight each, 5 lbs. Price each, $2.65

Code—Writ

Packed one in a pasteboard box and two dozen in a case.

No. 46



Differs from No. 3 only in the construction of the jaws, which are brought back into position by means of a protected spring.

The claws on both these tools are securely fastened to shank by hardened bolts.

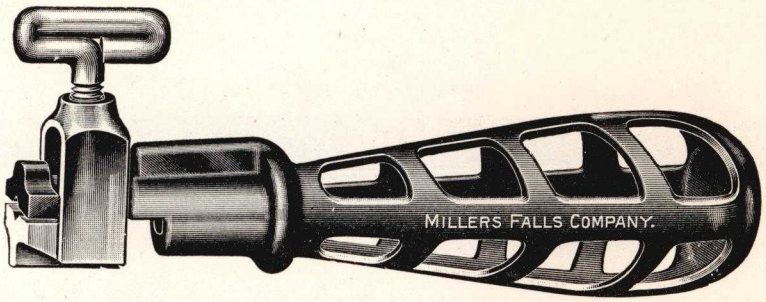
Weight each, 5 lbs. Price each, $2.50

Code—Writer

Packed one in a pasteboard box.

File Handle

No. 448



While this handle holds perfectly files with tangs of all sizes and shapes, and is primarily a file handle, yet it also holds a variety of shanks of different shapes and sizes which do not exceed $\frac{3}{8}$ inch square or flat.

Malleable iron handle, japanned black. Screw and yoke white nickeled.

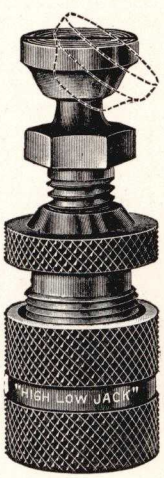
Length $5\frac{1}{4}$ inches. Weight (one-half dozen), $2\frac{1}{8}$ lbs. Price each, $.25

Code—Waddle

Packed one-half dozen in a pasteboard box.

Jack Screw

No. 100



The principal uses of this tool are:

1. Leveling up work on planers, shapers and milling machines.
2. Acts as adjustable blocking for clamping work to be machined.
3. For support under lathes and screw machine tools for heavy cuts.

Tilting cap has milled "V" slot for use under round work. Cap is removable permitting base to be used as a blocking. Telescoping base gives greater range of adjustment than any other pattern.

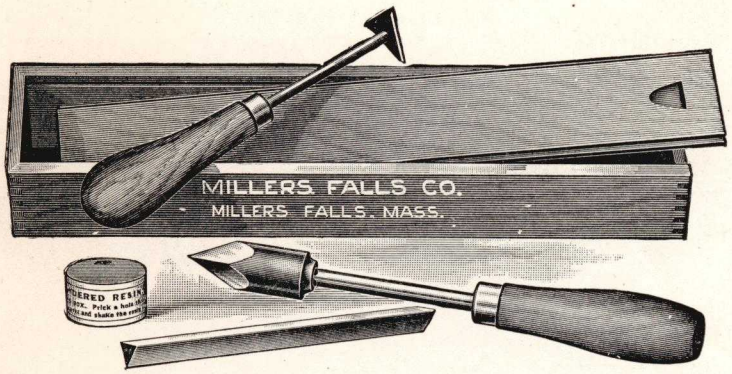
All parts machined turned, of steel and case hardened. Polished overall. Diameter 1 inch. Range $2\frac{1}{4}$ inches to 4 inches.

Weight (one-half dozen) 2 lbs. *Code—Epoch* Price each, $1.05

Packed one-half dozen in a pasteboard box.

Soldering Sets

No. 1



With this set the repairing of small leaks in the radiator, water pump, household utensils, etc., is easily and quickly done.

The copper can be used as an ordinary soldering copper or attached to a gas burner. Handle is hollow with holes directly beneath the copper.

Set consists of soldering copper, bar of solder, box of resin and a scraper.

Weight each, 14 oz. Price each, $1.35

Code—Fair

Packed one set in a wooden box.

(Coppers only, with handle, each $0.75)

No. 2



Differs from No. 1 only in the handle, which is solid and not adapted for use with a gas burner.

Weight each, 15 oz. Price each, $1.20

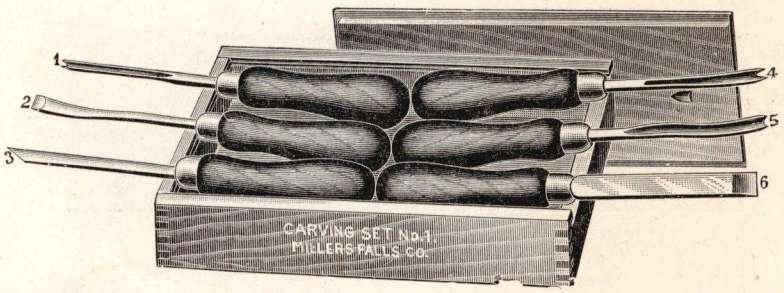
Code—Falcate

Packed one set in a wooden box.

(Coppers only, with handle, each $0.70)

Carving Tool Sets

No. 1



A small, yet thoroughly practical set. Contains the following six tools, as illustrated:

"V" tool, bevel chisel, curved gouge, straight chisel, "U" tool, straight gouge.

Forged steel blades with keen cutting edges. Stained hardwood handles, ferrules polished and nickel plated.

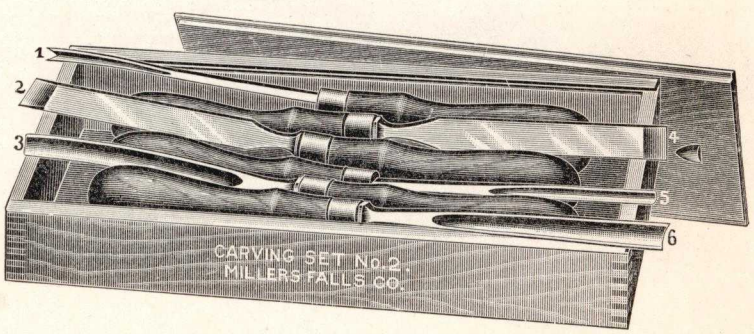
Packed in hardwood box with sliding cover. Length of tools 5½ inches.

Weight per set, ½ lb. Price per set, $2.75

Code—Winner

Packed each box in a pasteboard carton.

No. 2



This set differs from No. 1 only in the length of tools.

Length of tools 8½ inches. Weight per set, 14 oz. Price per set, $4.00

Code—Willow

Packed each box in a pasteboard carton.

Carving Tool Set
No. 3



A high quality set made especially for manual training school use. Contains the following twelve tools: "U" tool, veining tool, narrow bevel chisel, narrow chisel, small circular gouge, small flat gouge, bent chisel, "V" tool, curved gouge, large circular gouge, large flat gouge, wide chisel.

Clips hold each tool firmly in place.

Forged steel blades, with keen cutting edges. Polished cocobolo handles. Polished and nickel plated ferrules. Packed in hinged hardwood box.

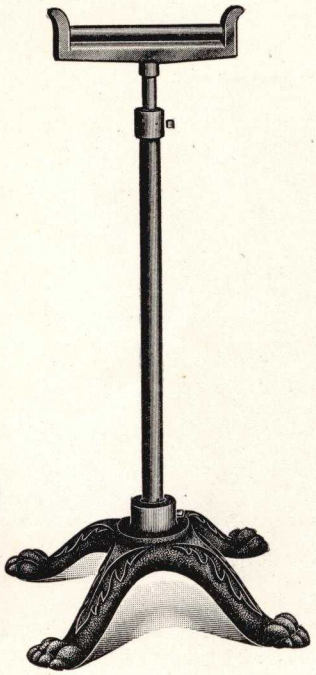
Length of tools, except matting tool, average 8½ inches.

Weight per set (with box), 3¾ lbs. Price per set, $13.75

Code—Wigwam

Packed each box in a pasteboard carton.

Bar Rest



No. 890

A handy accessory for use in connection with power hack saws, to support long pieces to be cut.

Adjustable from 24 to 31 inches.

Weight 12 lbs. Price, $4.50

Code—Sedan

Anvil

No. 2



Forged from solid steel and properly hardened and tempered. Face, size and horn polished. Base japanned black.

Dimensions of face 6 x 2 inches.

Length of horn 2 inches. Weight 6½ lbs. Price, $5.60

Code—Withe

Tool Set

No. 500



An unusually serviceable combination of tools, attractively packed in a durable hardwood box. Box is stained both inside and outside. Each tool is held by spring clamps and is easily removed.

Set contains the following tools:

One No. 1323 8-in. sweep brace.
One No. 303 hand drill, with four drill points.
One No. 4 tool holder, with ten tools.
One No. 300 glass cutter with six wheels.
Six No. 542 auger bits, sizes 4, 6, 10, 12 and 16/16.

Also one Millers Falls Handbook for Mechanics, brimful of valuable information.

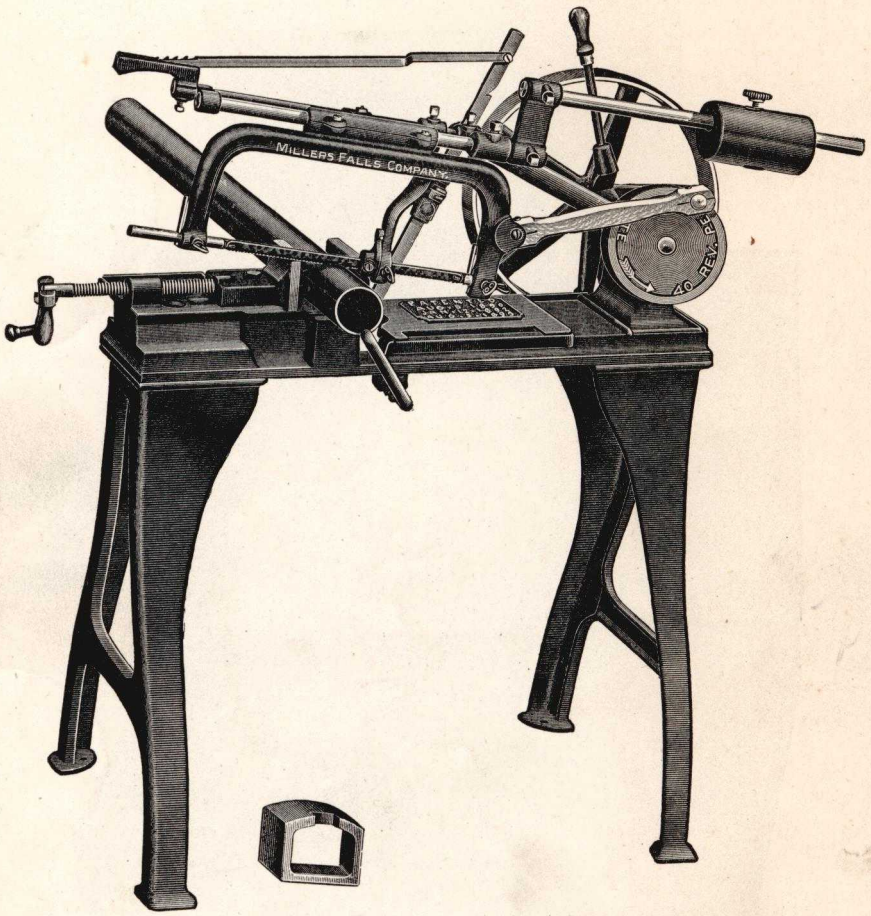
Size of box 15 x 9 inches. Weight 10 lbs. Price $13.75

Code—Toset

Packed each box in an individual pasteboard carton.

Power Hack Saw

No. 89



This machine, while simple in design and lighter than many power hack saws, is thoroughly efficient and practical.

Specifications

Gravity feed. Adjustable by weight on bar.
Direct drive. 5¾ inch stroke. Forty-five strokes per minute recommended.
One-third H.P. required. Capacity, all shapes and sizes up to 4½ inches.
Automatic stop. Height to top of bed, 28 inches. Size of pulley 13½ x 2⅛ inches.
Takes 10, 11 and 12 inch blades. Six 12 inch blades furnished with machine.
Floor space, 18 x 30 inches.

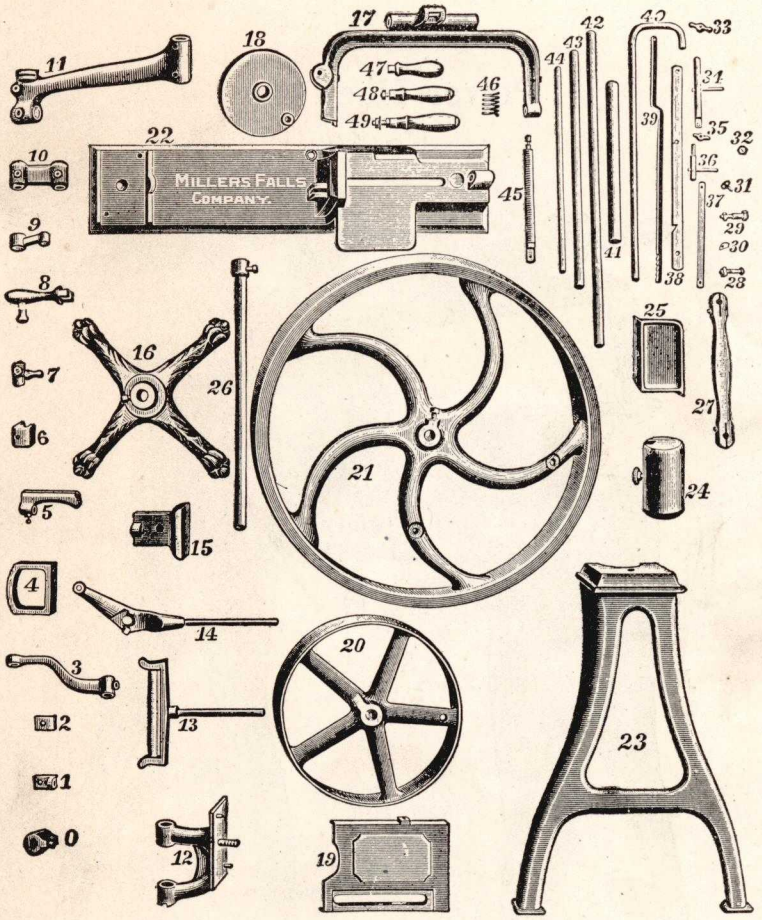
Weight boxed, 222 lbs.; crated, 200 lbs.; net, 168 lbs.

Price $62.00

Code—Secant

Power Hack Saw Parts

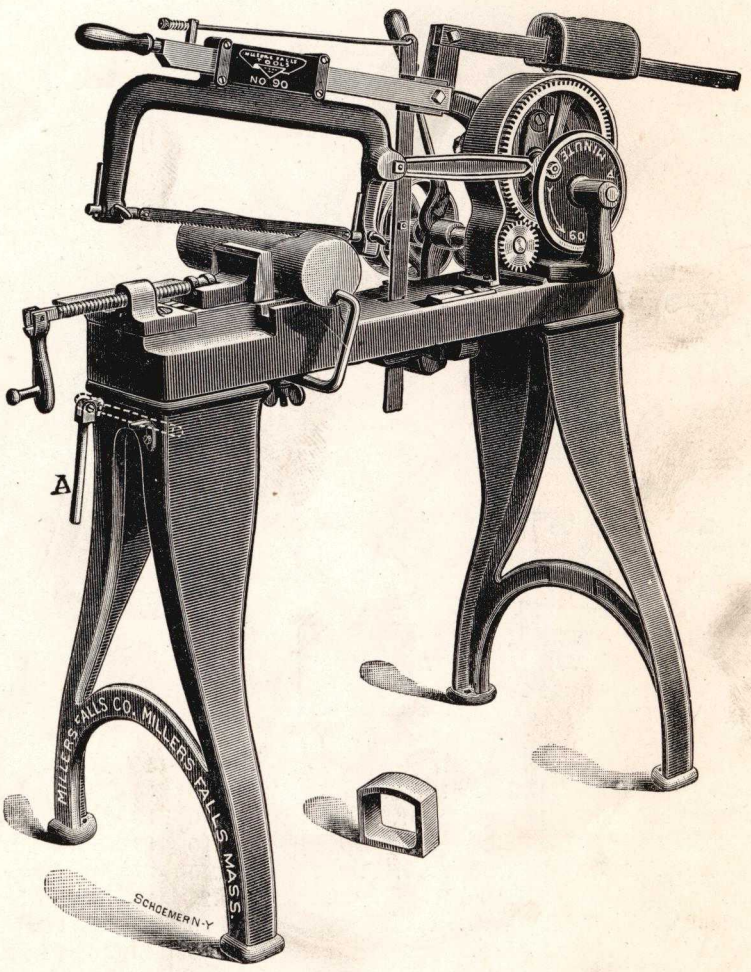
No. 89



No.			No.			No.		
0	Clutch Collar	$0.40	17	Frame	$3.10	34	Long Stud	$0.30
1	Elevator Stop	.10	18	Face Plate	1.40	35	Short Stud Nut	.25
2	Frame Clamp	.15	19	Sliding Frame	.90	36	Short Stud	.10
3	Long Guide	.50	20	Pulley	5.15	37	Short Strap	.20
4	Loose Vise Jaw	.90	21	Hand Wheel	20.25	38	Elevator Bar	.20
5	Lift Handle	.30	22	Bed	10.20	39	Long Strap	.20
6	Gauge Clamp	.10	23	Leg	7.00	40	Gauge Rod	.40
7	Short Guide	.40	24	Weight	2.80	41	Arbor	.45
8	Vise Wrench	.30	25	Tool Tray	.55	42	Weight Rod	.55
9	Short Yoke	.30	26	Rest Standard	.90	43	Large Bearing Rod	.35
10	Long Yoke	.60	27	Wood Pitman	.25	44	Small Bearing Rod	.15
11	Arm	2.80	28	Small Pitman Bolt	.10	45	Vise Screw	1.10
12	Standard	4.50	29	Large Pitman Bolt	.10	46	Clutch Collar Spring	.10
13	Rest Yoke	1.10	30	Dog	.15	47	Clutch Lever Handle	.20
14	Clutch Lever	.75	31	Malleable Thumb Screw	.10	48	Pulley Bolt and Handle	.35
15	Vise Jaw	1.60	32	Guide Screw and Nut	.20	49	Handwheel Bolt and Handle	.95
16	Rest Base	2.70	33	Gauge Clamp Nut	.10			

Power Hack Saw

No. 90



Power Hack Saw

No. 90

This machine is built on the same general lines as No. 89 shown preceding, but has several features which add to its serviceability.

The machine has gear drive, giving great steadiness to the stroke. By a patented device the saw frame is slightly lifted on the return stroke to prolong the life of the blade, and has a quick return movement. The speed of the back stroke is just twice that of the cutting stroke, resulting in a valuable saving of time. Action automatically stops when cut is completed.

An attachment is provided which, by lifting lever A as shown in illustration, holds the blade in suspension a trifle above the work. This permits the use of both hands in adjusting the work or measuring it, etc. There is a support on the bed on the cut-off side of the blade to prevent breaking blades when cut is nearly finished. In the head is an adjusting screw to take up any wear on the arm. A removable vise nut in the bed can be replaced in case of wear. The principal working parts of the machine are under the bed away from dust and dirt.

Specifications

Back geared 3 to 1.
Capacity 5 x 5 inches.
Stroke 5¾ inches.
Automatic stop.
Sixty strokes per minute recommended.
One-third H.P. required.
Height to top of bed 28 inches.
Size of pulley 2 x 6 inches.
Takes 12 inch blades only.
Six 12 inch blades furnished with machine.
Floor space 20 x 46 inches.

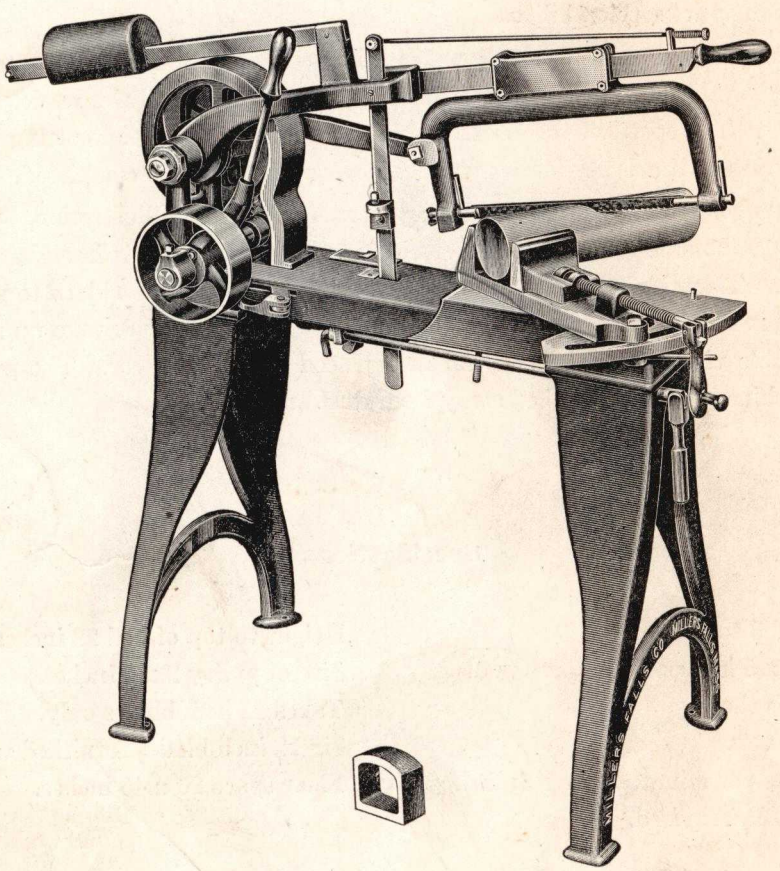
Weight boxed, 294 lbs.; crated, 258 lbs.; net, 215 lbs.

Price $92.00

Code—Sectile

Power Hack Saw

No. 91



Power Hack Saw

No. 91

This machine is identical with No. 90 except is equipped with swivel vise. This is particularly valuable in sawing material at an angle from 90° to 45°.

Specifications

Back geared 3 to 1.

Capacity 5 x 5 inches.

Stroke 5¾ inches.

Automatic stop.

Sixty strokes per minute recommended.

One-third H.P. required.

Height to top of bed 28 inches.

Size of pulley 2 x 6 inches.

Takes 12 inch blades only.

Six 12 inch blades furnished with machine.

Floor space 20 x 46 inches.

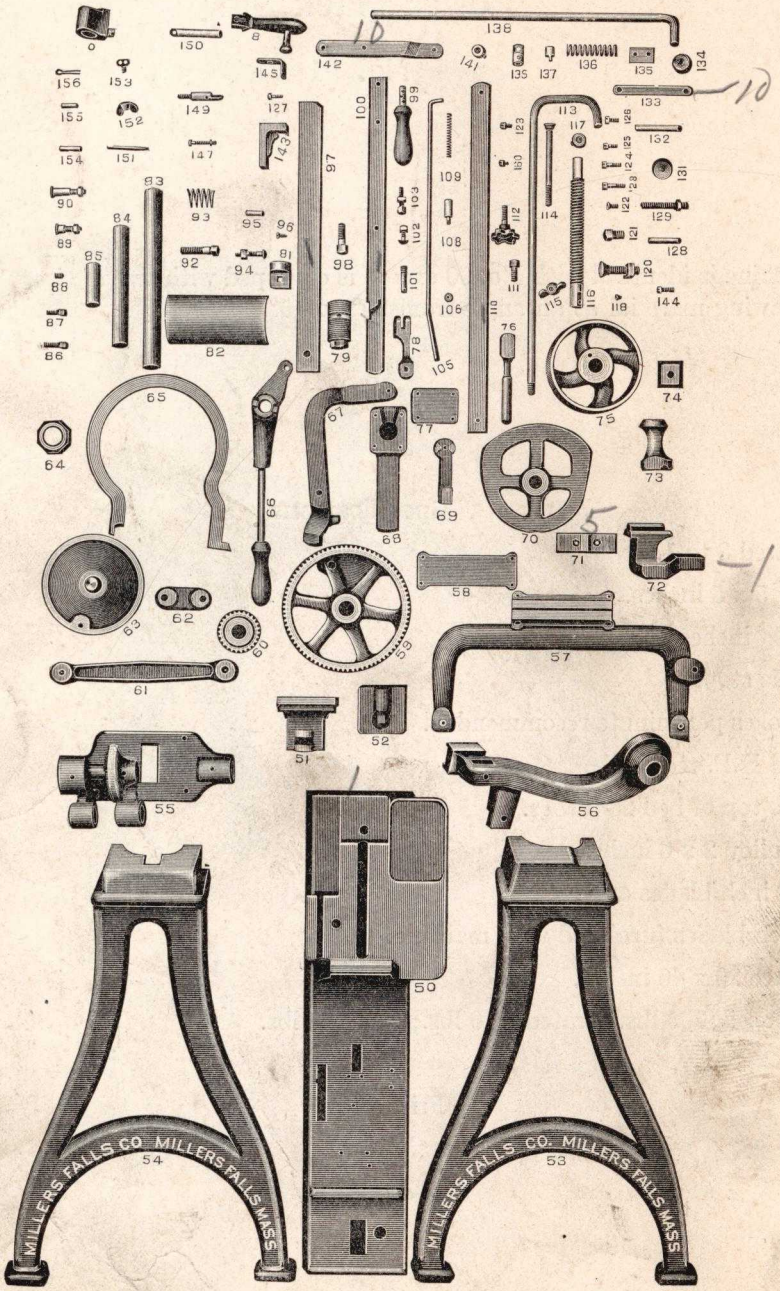
Weight boxed, 305 lbs.; crated, 270 lbs.; net, 225 lbs.

Price $95.00

Code—Sector

Power Hack Saw Parts

Nos. 91 and 91



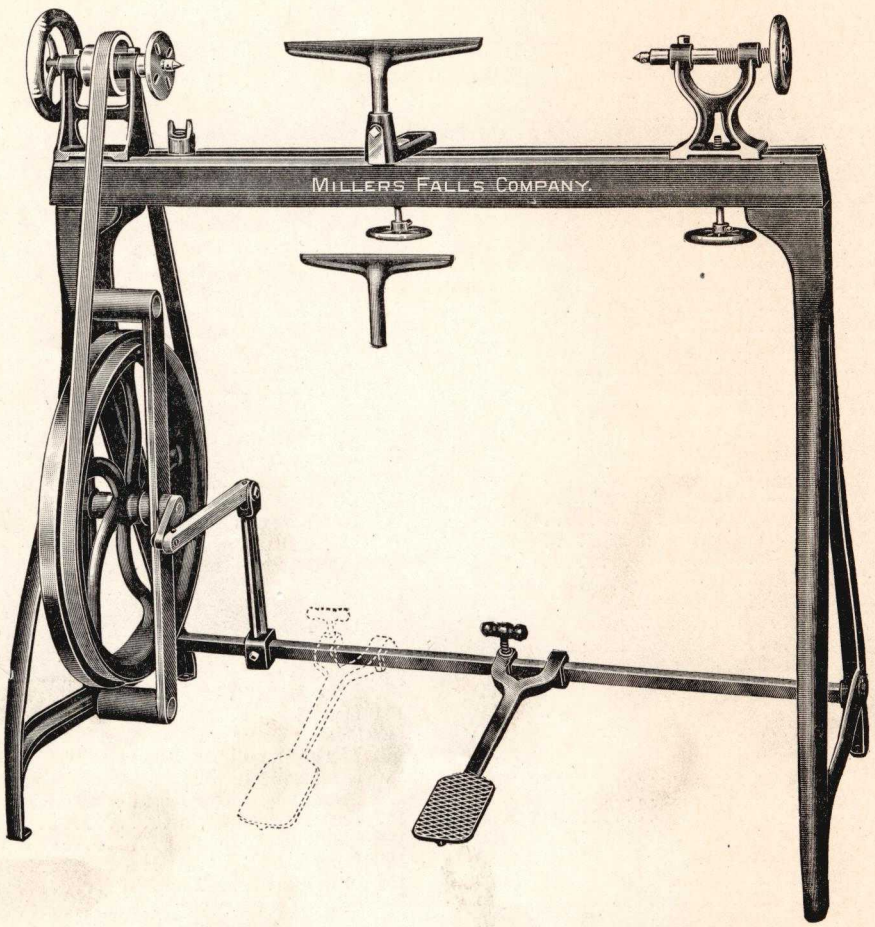
Power Hack Saw Parts

Nos. 90 and 91

0	Clutch Collar	$ 0.40
8	Vise Handle	.30
50	Bed	12.90
51	Vise Jaw	1.20
52	Vise Nut	.90
53	Front Leg	10.20
54	Rear Leg	10.20
55	Head	6.70
56	Arm	3.90
57	Frame	3.40
58	Frame Cover	.40
59	Large Gear	3.60
60	Small Gear	1.35
61	Pitman	.55
62	Link	.35
63	Face Plate	1.20
64	Adjusting Screw Check Nut	.35
65	Gear Guard	1.25
66	Clutch Lever	1.10
67	Lifter Lever	1.25
68	Lifter Box	1.20
69	Lifter Cam	.20
70	Cam	1.40
71	Knockoff	.10
72	Knockoff Lifter	.60
73	Gauge Clamp	.35
74	Gauge Top	.10
75	Pulley	2.20
76	Gauge Lifter Handle	.20
77	Lifter Cover	.20
78	Clutch Lever Link	.25
79	Adjusting Screw	1.05
81	Elevator Stop	.15
82	Weight	2.90
83	Drive Arbor	.60
84	Gear Arbor	.50
85	Face Plate Arbor	.20
86	Gear Screw	.10
87	Cam and Clutch Collar Screw	.10
88	Small Gear Screw	.10
89	Gear Link Screw	.10
90	Face Plate Link Screw	.15
92	Head Lock Screw	.15
93	Collar Spring	.10
94	Pitman Screw	.10
95	Pulley Pin	.10
96	Catch Plate and Gear Guard Screw	.10
97	Guide Bar	1.60
98	Guide Bar Screw	.10
99	Guide Bar Handle	.25
100	Elevator Bar	.75
101	Elevator Bar Screw	.10
102	Elevator Bar Stop Bolt	.10
103	Elevator Bar Adjusting Screw	.10
105	Elevator Bar Trip Rod	.10
106	Elevator Bar Trip Rod Nut	.10
108	Elevator Bar Trip Rod Stud	.10
109	Elevator Bar Trip Rod Spring	.10
110	Weight Bar	$ 0.60
111	Weight Bar Screw	.10
112	Weight Screw	.10
113	Gauge Bar	.40
114	Gauge Bar Clamp Bolt	.10
115	Gauge Bar Clamp Bolt Wing Nut	.10
116	Vise Screw	.90
117	Vise Screw Collar	.10
118	Vise Screw Collar Screw	.10
120	Vise Nut Clamp Bolt	.10
121	Vise Jaw Screw	.15
122	Knockoff Screw	.10
123	Knockoff Strap Screw	.10
124	Knockoff Lever and Link Screw	.10
125	Knockoff Center Lever Screw	.10
126	Knockoff and Link Screw	.10
127	Lifter Box Cover Screw	.10
128	Lifter Box Raising Pin	.10
129	Lifter Box Adjusting Screw	.10
131	Lifter Box Disc	.10
132	Lifter Box and Lever Pin	.15
133	Connecting Strap	.15
134	Lifter Lever Roll	.10
135	Elevator Catch Plate	.10
136	Lifter Lever Spring	.10
137	Lifter Lever Spring Stud	.10
138	Measuring Lifter Rod	.30
139	Measuring Lifter Rod Head	.30
141	Measuring Lifter Rod Collar	.15
142	Center Lever	.15
143	Measuring Lifter Rod Bearing Casting	.30
144	Measuring Lifter Rod Bearing Screw	.10
145	Measuring Lifter Rod Bearing Rest	.10
147	Frame Cover Screw	.10
149	Short Stud	.20
150	Long Stud	.20
151	Stud Pin	.10
152	Stud Wing Nut	.15
153	Stud Thumb Screw	.10
154	Head Dowel Pin	.10
155	Weight Bar Pin	.10
156	Cotter Pin	.10
160	Lifter Box Disc Screw	.10
170	Bed	12.40
171	Vise	3.85
172	Pitman	.60
173	Knockoff	.10
174	Gauge Clamp	.40
175	Vise Clamp Bolt	.10
176	Vise Swivel Bolt	.10
177	Gauge Bar Clamp Bolt	.10
178	Vise Screw	.65
179	Leg Clamp Bolt	.10
180	Lifter Lever Spring	.10
181	Stop Dowel Pin	.10
182	Vise Jaw Screw	.15
183	Clutch Washer	.15

Lathe

No. 417



A machine designed for amateurs for working on wood and light metals where power is lacking. The heavy drive wheel increases its capacity over lighter machines.

Specifications

Two step cone for 1 inch belt on drive wheel, with diameters of 18⅝ inches and 19¾ inches.

Head stock has two step cone with diameters of 2⅜ inches and 3½ inches.

Iron castings. Steel spindles. Adjustable bearings. Equipped with one spur center, two pointed centers and a long and short tool rest with socket to attach to bed.

Swing of lathe 10 inches. Distance between centers 30 inches. Height to top of bed 35¼ inches.

Floor space 43 x 23 inches.

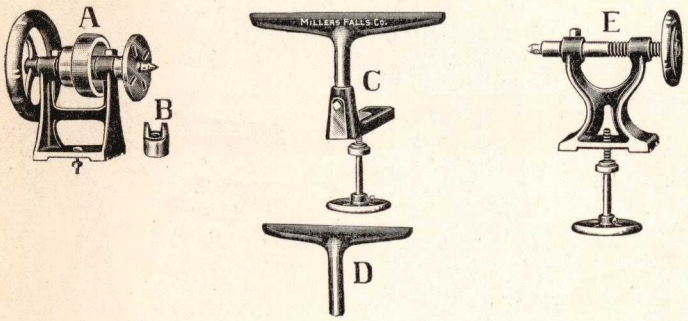
Weight crated, 200 lbs.; net 175 lbs. Price each, $55.00

Code—Soffit

Set up and packed in a wooden crate.

Principal Working Parts of Lathe

No. 417



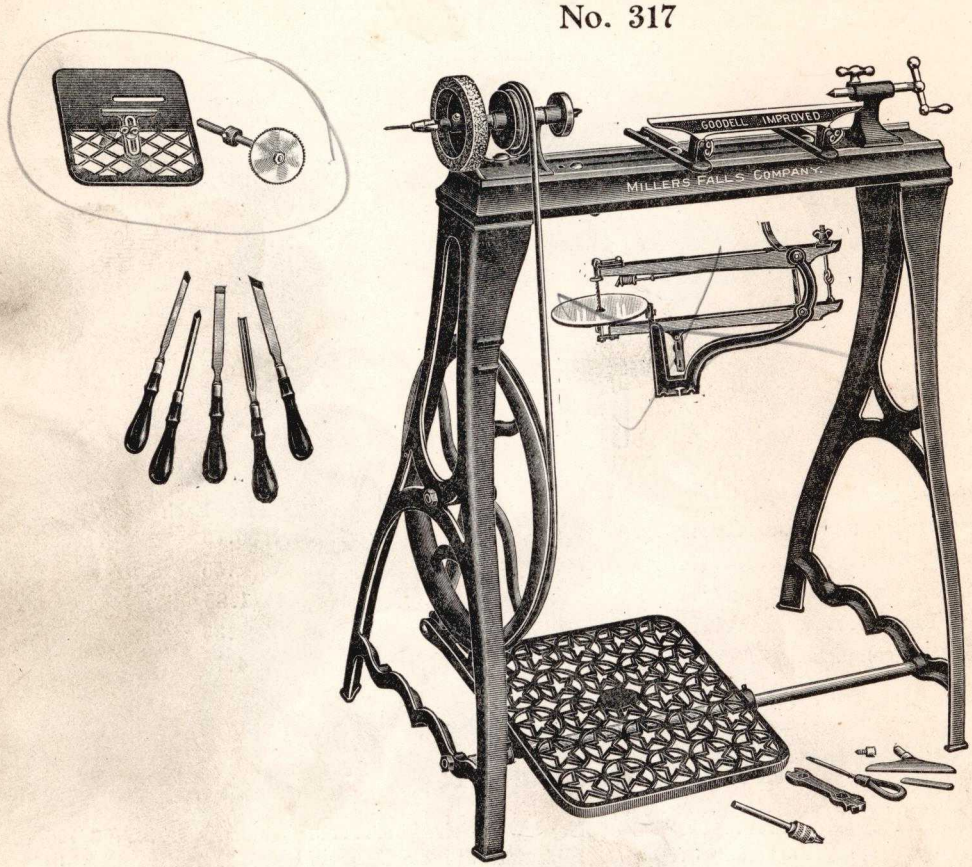
		Price Each
A	Headstock, complete	$6.75
B	Spur Center	.55
C	Long Rest with Socket and Clamp	1.85
D	Short Rest	.35
E	Tailstock, complete	4.75

Parts of Lathe No. 417

Bed	$5.35
Belt	3.50
Clamping Screw	.20
Clamp Screw Collar	.10
Clamp Screw Wheel	.25
Cone Pulley	1.50
Cone Pulley Blind Screw	.10
Crank	.70
Crank Bolt	.10
Crank Pin	.10
Drive Wheel	8.90
Drive Wheel Arbor	.45
Drive Wheel Set Screw	.10
Drive Wheel Arbor Support	2.40
Drive Wheel Arbor Support Screw	.15
Drive Wheel Arbor Support Screw Washer	.10
Face Plate	.50
Feed Wheel	.65
Feed Wheel Set Screw	.10
Fly Wheel	1.40
Fly Wheel Set Screw	.10
Headstock	1.70
Headstock Adjusting Screw	.10
Headstock Clamp Bolt	.10
Headstock Spindle	$ .90
Headstock Spindle Collar	.10
Left Leg	5.20
Long Rest	.40
Pitman Arm Casting	1.15
Pitman Arm Bolt	.10
Pitman Arm Set Screw	.15
Rest Socket	.75
Rest Socket Clamp Nut	.10
Rest Socket Set Screw	.10
Right Leg	5.35
Right Leg Bolt	.10
Short Rest	.30
Spur Center	.55
Tailstock	2.60
Tailstock Adjusting Screw	.10
Tailstock Spindle	1.20
Taper Center	.45
Treadle	1.90
Treadle Binder Screw	.10
Treadle Rod	1.30
Treadle Rod Cotter Pin	.10
Wood Pitman	.15

Goodell Lathe

No. 317



This lathe is intended for amateur work, and is an efficient machine for this purpose.

Specifications

Five inch swing, 14 inches between centers.
Two grooves on drive wheel cone pulley permit change of speed.
Head has 2 inch face plate and spur center and screw center for turning cups.
Tail stock has screw feed and can be clamped at any point.
Equipped with drill spindle with 3-jaw chuck, capacity 0–¼ inch round shank drills long; and short tool rests; emery wheel 4 x ¾ inch; five turning tools; wrench, and drill points.
No. 317 Lathe only.
No. 320 Lathe and Fret Saw Attachment.
No. 321 Lathe with Fret and Circular Saw Attachment.
No. 318 Fret Saw Attachment only.
No. 319 Circular saw attachment only.

No.	Weight Boxed	Weight Net	Price	Code
317	71 lbs.	50 lbs.	$26.50	*Solar*
320	78 lbs.	57 lbs.	32.00	*Sole*
321	81 lbs.	60 lbs.	33.75	*Solox*
318	16 lbs.	7 lbs.	5.50	*Solid*
319		3 lbs.	1.75	*Solux*

Knocked down and packed one machine in a wooden box.

Goodell Lathe Parts

No. 317

Name of Part	Price
Lathe Bed	$2.40
Legs, each (2)	2.60
Treadles	1.65
Treadle Rod	.50
Treadle Caps, each (2)	.30
Driving Wheel	3.00
Driving Wheel Bolt	.10
Emery Wheel	.50
Headstock	.65
Headstock Spindle and Face Plate	.60
Headstock Spindle Cone Pulley	.60
Tailstock	.65
Tailstock Spindle and Crank	.30
Tailstock Spindle Binder	.35
Long Rest	.20
Short Rest	.10
Rest Sockets, each (2)	.25
Spur Center	.10
Screw Center for Cups	.10
Millers Falls Chucks	2.50
Saw Attachment Arm Casting	1.60
Arms, per pair	.70
Table	.95
Stretcher	.10
Clamps, per pair	.60
Bolts	.10
Turning Tools (5)	3.50
Arm Bolts and Nuts	.10
Belt	.75
Drills, per dozen	.10
Pitman, Long	.10
Pitman, Short	.10
Pitman Screws	.10
Screw Driver	.10
Blower	.30
Table Bolt	.10
Wrench	.15
Saw Guide (new pattern)	.10
Arm Spring	.10
Winged Drill Nut	.15

INDEX

	Page
Angular Bitstock	18
Angular Drilling Machines	82
Anvil	200
Anvil, Vise and Drill	83
Assembling Tool	178
Auger Bits (See Bits)	
Auger Bit Sets	28, 29
Auger Handles	42, 43
Augers, Boring Machine	38
Auger, Hollow	194
Augers, Machine	38, 39
Augers, Rafting	35
Augers, Ring	36, 37
Augers, Ship	33–35
Auto Jack	171
Automatic Reversible Screw Driver	101
Band Saws, Metal	116
Bar Rest	200
Bench Drills	71–77
Bench Drill Parts	78, 79
Bench Drill Vises	73
Bench Hook	155
Bench Vises	185–189
Bits, Auger:	
Double Lip	27
Electricians' Special	26
Ship	32
Single Lip	26
Solid Center	27
Sets of	28, 29
Bits, Car	30–32
Bit Braces	5–18
Bit Extensions	40, 41
Bit Gauges	22
Bits, Screw Driver	106
Bitstock, Angular	18
Blades:	
Butcher Saw	124
Coping Saw	127
Fret Saw	129
Hack Saw	107–115
Turning Saw	125
Bobs, Plumb	155
Borer, Pulp	192
Borers, Sill	20, 21
Boring Machine Augers	38
Boring Machine (Carpenters')	46
Boring Machine (Electricians')	44
Boring Machine Parts	45, 47
Boxes, Mitre	140–152
Braces:	
Corner	16
Drill	17
Plain or Sleeve	13–15
Ratchet	6–12
Whimble	18
Brace Parts	19
Breast Drills	59–69
Breast Drill Parts	70
Bushing Drivers	177
Butcher Saw Blades	124
Butcher Saw Frames	124
Car Bits	30–32
Carving Tool Sets	198, 199
Center Punches	161
Chain Drills	80, 81
Chart, Hack Saw	111
Chucks	91–96
Chuck, Breast Drill	68
Chucks, Lathe	96
Circular Glass Cutter	139
Coping Saw Blades	127
Coping Saw Frames	126, 127
Corner Brace	16
Cotter Pin Puller	178
D Handle for Breast Drills	68
Drill Brace	17
Drills:	
Bench	71–77
Breast	59–69
Chain	80, 81
Hand	48–58
Push	85–89
Ratchet	90
Drilling Machines, Angular	82
Drilling Machine Parts	84
Drill Parts, Hand and Breast	70
Drill Points, Hand	58
Drill Points, Push	90
Drill Points, Twist	58
Drive Punches	163, 164
Extensions, Bit	40, 41
File Handle	196
Frames:	
Butcher Saw	124
Coping Saw	126, 127
Fret Saw	128
Hack Saw	117–123
Jeweler Saw	133
Kitchen Saw	125
Piercing Saw	134
Turning Saw	125
Fret Saw Blades	129
Fret Saw Frames	128
Fret Saw Machines	130, 131
Fret Saw Machine Parts	132
Fret Saw Sets	128, 129
Gauges, Bit	22
Gauge Glass Cutter	139
Gauge, Jointer	154

INDEX (Continued)

PAGE

Glass Cutters 135–139
Glass Cutter, Circular 139
Glass Cutter, Gauge 139
Grinders, Valve 175
Grinding Heads 180–184

Hack Saw Blades 107–115
Hack Saw Chart 111
Hack Saw Frames 117–123
Hack Saw Machines 202–207
Hack Saw Machine Parts 203, 208, 209
Hand Drills 48–58
Hand Drill Parts 70
Hand Drill Points 58
Handles, Auger 42, 43
Handle, File 196
Hand Vises 190–192
Heads, Polishing and Grinding 180–184
Hollow Auger 194
Hook, Bench 155

Iron Levels 154

Jack, Auto 171
Jack Screws 193
Jack Screw, Machinists' 196
Jacks, Truck 172, 173
Jeweler Saw Frames 133
Jointer Gauge 154
Joist Tools 20, 21

Kitchen Saw Frame 125

Lathes 210–213
Lathe Chucks 96
Lathe Parts 211, 213
Levels, Iron 154
Line-up Tools 179

Machine Bits 38, 39
Machines:
- Angular Drilling 82
- Boring 44–46
- Fret Saw 130, 131
- Hack Saw 202–207

Machinists' Scribers 169
Mitre Boxes 140–152
Mitre Box Parts 142–151
Mitre Planer 153

Nail Pullers 195
Nail Sets 157–160

Piercing Saws 134
Planer, Mitre 153
Plumb Bobs 155
Polishing Heads 180–184
Power Hack Saws 202–207
Power Hack Saw Bar Rest 200

PAGE

Power Hack Saw Parts 203, 208, 209
Prick Punches 162
Pullers, Nail 195
Pulp Borer 192
Punches:
- Assembling 178
- Center 161
- Drive 163, 164
- Line-up 179
- Prick 162
- Sets of 165–168
- Wood Screw 169

Push Drills 85–89
Push Drill Points 90

Rafting Augers 35
Ratchet Drills 90
Ratchet Screw Drivers 102
Rim Wrenches 174
Ring Augers 36, 37
Saw Blades (See Blades):
Saw Frames (See Frames):
Saws, Band 116
Screw Drivers:
- Automatic Reversible 101
- Plain 103–105
- Ratchet 102

Screw Driver Bits 106
Screws, Jack 193
Scribers, Machinists' 169
Scroll Saws 130, 131
Ship Augers 33–35
Ship Auger Car Bits 31, 32
Sill Borers 20, 21
Soldering Sets 197
Spoke Shaves 156
Spoke Trimmers 194
Spring Leaf Opener 177

Tap Wrenches 176
Tool Holders 98–100
Tool Set, Combination 201
Truck Jacks 172, 173
Turning Saw Blades 125
Turning Saw Frames 125
Twist Drill Points 58

Valve Grinders 175
Vises:
- Bench 185–189
- Bench Drill 73
- Clamp 186, 187
- Hand 190–192

Whimble Brace 18
Wood Screw Punches 169
Wrenches, Rim 174
Wrenches, Tap 176

MEMORANDA

Printed in U. S. A.

Press of
The Wilson H. Lee Company
New Haven, Conn.